

PROTEX[®]

BY



**Our world needs
things to last.**







I have always been all or nothing.

I mean – what is the point of going for something in a half-hearted fashion?

You get nowhere because there is no certainty of what you want to achieve.

The vision, for me, has always been to create an environment that empowers people to be their own character, whilst somehow all heading in the same overall direction.

If you tap into the natural but fun & loose part of people's personas, I find it is easy to build on that and things naturally develop from there.

That way the people, the ideas, the products and therefore the business are free to flow in the right direction.

There really is no going back – at all paths along this journey we are free and we have not held back.

And why should you?



James Firth, CEO

We combine innovative design with passion and soul, respecting the natural environment.

Creating unique spaces that are designed to outlive and outperform others.

Our world class steel profiles and unique built-up systems are thoughtfully crafted in Yorkshire, the home of steel.









Our people, philosophy & values.

We are a collective of changemakers. Our focus is on our customers, but also on each other, working as a team to nurture positivity and creativity to enable us to achieve amazing things together.

We believe in honesty and delivering on promises.

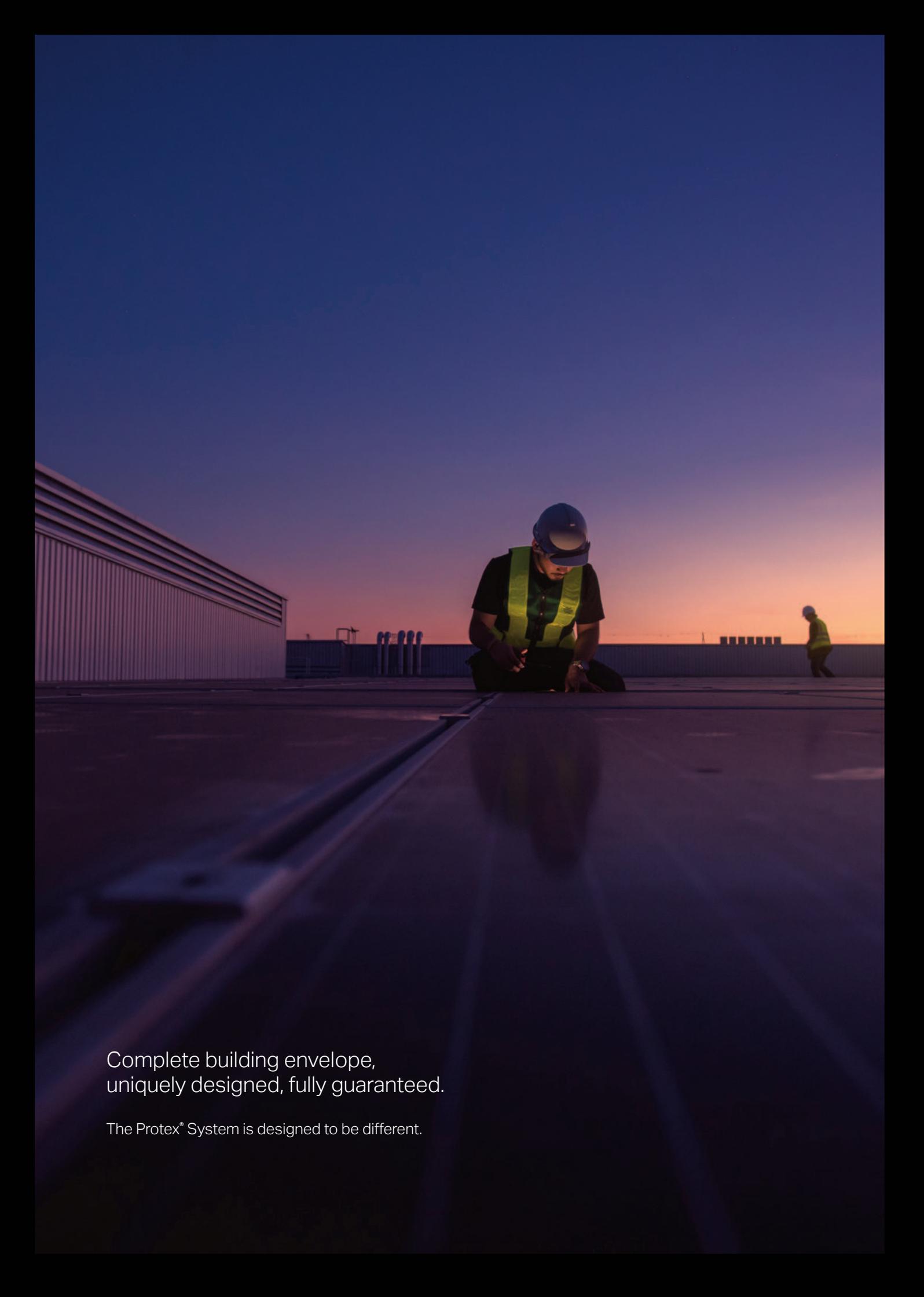
We are committed to achieving excellence in everything we do.

We work together, support each other and recognise that each and every one of us contributes in different ways.

We understand that our customers are our business and are driven by providing exceptional products, services and experiences to them.

We appreciate that it's not just about the buildings we deliver, it's what they enable.

We embrace our differences and make time to have fun.



Complete building envelope,
uniquely designed, fully guaranteed.

The Protex[®] System is designed to be different.



How your building works is up to you. We're here to offer expertise, advice and choice. We go way beyond steel profiles, giving you the ability to select a range of elements to construct your ideal environment.

Protex® enables you to customise your building envelope to offer project specific design and performance enhancements.

From the ground up, we're here to help you work with approved suppliers to achieve your ultimate specification, on time and on budget, making it easier for you and kinder on the planet.

Control changes everything.

We work with industry leading partners to create a site assembled system from a catalogue of verified, tested and approved components. Our carefully curated directory of Protex® Approved Suppliers and their specific product ranges, provides excellent customer service and specialist technical support. We will collectively work with the design team through to the site team to ensure the project runs efficiently throughout its life span.

Each component within the system can be uniquely specified to suit the individual projects requirements. Sustainability, fire, thermal and acoustic performance combined with a buildings use, location and surrounding environment will all impact the projects design requirements.

The ability for the contractor to maintain established relationships with trusted organisations, ensures a competitive edge and improved efficiency on site.





Specification Benefits

- Extensive range of external building finishes including embossed, smooth & metallic options
- Suitable for use in aggressive environments
- A1 rated non-combustible finishes
- Bespoke brand colour matches
- Non-fragile Liner Profile options
- Configurations suitable for barrel vault roofs

Technical Benefits

- Comprehensive site audits during installation
- Dedicated technical support team
- Bespoke project calculations
 - Thermal
 - Acoustic
 - Air Leakage

Performance Benefits

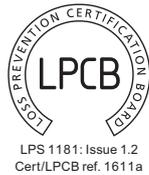
- U-Values down to $0.1W/m^2k$
- Low air leakage as standard
- Enhanced cranked ridge detail available
- Specialist acoustic systems available incorporating perforated profiles
- Specially designed and tested Fire Wall Systems
- LPCB (Loss Prevention Certification Board) Certification

Guaranteed Performance.

*Guarantee period subject to specification, registration & approval

We take safety very seriously.

The Protex® Systems have been tested and certified by world leading testing houses including Warringtonfire, BRE Global and to Loss Prevention Certification Board (LPCB). The internationally respected Loss Prevention Standards known as LPS gives confidence that the systems comply with the LPC Design guide for the external fire protection of buildings.



LPCB – Loss Prevention Certification Board

The LPS1181 Series of standards were developed by key stakeholders including ABI (Association of British Insurers) developers, building owners and trade associations for the purpose of property protection. The Protex® Systems have been tested and certified to the standard LPS1181 Part 1: Issue 1.2 – Series of Fire Growth Tests for LPCB Approval and Listing of Construction Product Systems. Part 1: Requirements and Tests for Built-up Cladding and Sandwich Panel Systems for use as the External Envelope of Buildings.

The Protex® PRX-RS® Roof Systems and PRX-WS® Wall Systems are certified and listed on Red Book Live. Certification to LPS1181-1 Grade EXT-B can be specified utilising approved components from our enhanced range of approved suppliers.

RedBookLive

RedBook Live

The LPCB Red Book is a key reference for specifiers, regulators, designers and end users of fire and security products and services. For systems to be listed in the Red Book they require independent experts to robustly check that it delivers and will continue to deliver the performance expected.

The Protex® Systems certification and documentation can be found via the RedBook Live website through certificate number 1611a.

Certificate of Product Approval

Certificate Number: 1611a

Issue: 01



FIRTH STEELS LIMITED

Calderbank
River Street
Brighouse
HD6 1LU

is authorised to use the LPCB mark in association with the product(s) listed in this certificate and appendix having complied with the requirements of the standard(s) as detailed below:

Products

Built-Up Cladding

Protex ® Roof System PRX-RS
Protex ® Wall System PRX-WS

Standards

LPS 1181 Part 1: Issue 1.2

Series of Fire Growth Tests for LPCB Approval and Listing of Construction Product Systems. Part 1: Requirements and Tests for Built-up Cladding and Sandwich Panel Systems for use as the External Envelope of Buildings.

This Certificate is maintained and held in force through regular surveillance activities and subject to the corresponding ISO 9001 Certificate being maintained.

Signed for BRE Global Ltd.

Vida Gaubsaite
Certification Scheme Manager

13 January 2021
Date of Issue

13 January 2021
Date of First Issue



This certificate and appendix remain the property of BRE Global Ltd and is issued subject to terms and conditions (for details visit www.redbooklive.com/terms).

To check the validity of this certificate and appendix please visit www.redbooklive.com/check, scan the QR tag or contact us.

BRE Global Ltd, Garston, Watford, WD25 9XX
T: +44 (0)333 321 8811 E: enquiries@breglobal.com

LPCB is a registered trademark of BRE (the Building Research Establishment Ltd.)



Together we can go so far.

The integration of industry leading suppliers into the Protex® family has enabled the creation of the Protex® Approved Scheme. With the combined expertise, customer service, and specialist products and manufacturing capability's, Protex® Approved aims to provide a solution for every building envelope.

Protex® Approved aims to educate and encourage best practices across all aspects of the Protex® System. Working throughout the project team, from specification and design through to Main Contractor and Installation Teams, Protex® Approved aims to ensure each and every project is designed and installed to last.

Approved Contractors

- Contractors sign up to our Protex® Contractors code of practice
- Protex® training can be provided to both Office & Site teams
- Comprehensive site audits are carried out on all Protex® projects

Approved Suppliers

- Suppliers sign up to our Protex® Suppliers code of practice
- Industry leading suppliers
- Cutting edge components
- Competitive edge on supply
- Individual product warranty's provided
- Full technical support
- Excellent customer service

Approved Fabricators

- Fabricators sign up to our Protex® Fabricator code of practice
- All fabricated items raw material sourced through Firth Steels
- Ensure Quality & Performance match
- Ensure colour consistency
- Competitive edge
- Regular facility and finished goods inspections

Approved through constant assessment and accreditation.

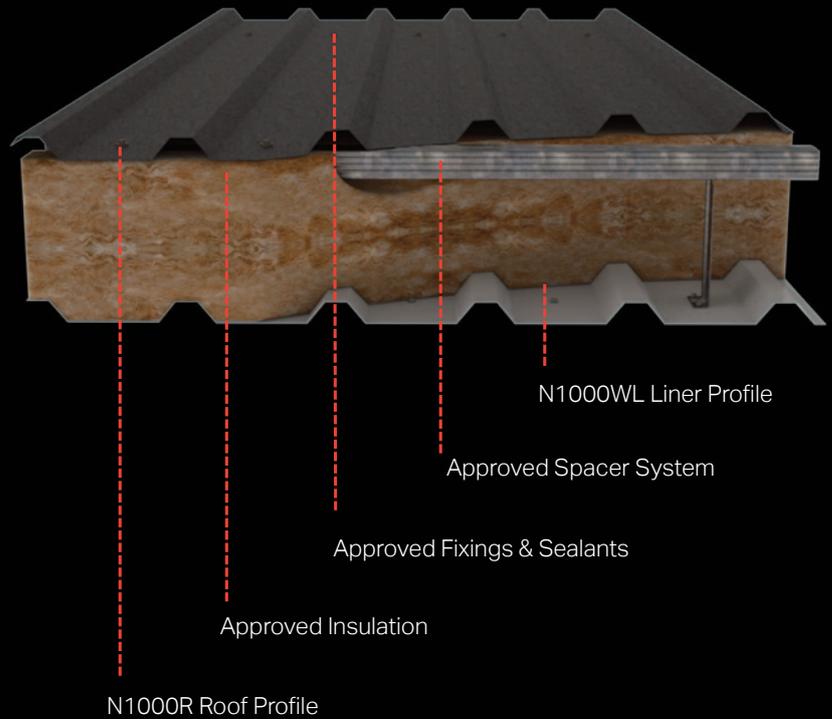




**Build your
system.**

PRX-RS[®]-01 System Benefits

- 25 Year Full System Guarantee
- LPCB Certification LPS1181 EXT-B (Subject to system specification)
- Specifications available for use under PV & Safety Line Systems[#]
- Class B - Non-fragile N1000WL Liner Profile
- Suitable for Roof Pitch down to 4 Degrees
- Suitable for barrel vault roof
- Enhanced curved ridge detail available
- Building Regulations Compliant



Protex[®] System Benefits

- Protex[®] Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex[®] Approved Fabricator network
- Industry leading Protex[®] Approved supply network

External Profile:
N1000R Roof Profile



Liner Profile:
N1000WL Liner Profile



Protex® Roof System 01

The **PRX-RS®-01** offers a tailor-made built up roof system combining high performance external finishes, A1 Non-combustible Insulation and a Walkable Liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth and design can be configured to meet the project specific thermal, acoustic, air tightness and fire performance with enhanced system's available.

The external N1000R Roof Profile can be specified in a range of high performance external finishes, offering external finish warranty periods up to 40 years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes.

The N1000WL Walkable Liner profile offers a Class B non-fragile working platform when fully fitted, reducing installation times on site. The N1000WL Profile is available in Bright White as standard and combined with a crank curved ridge detail can offer reductions in air permeability.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
150	120	0.39	33	15.8
170	140	0.33	34	16.0
190	160	0.28	36	16.3
210	180	0.25	37	16.5
230	200	0.22	39	16.8
250	220	0.20	40	17.1
270	240	0.18	42	17.3
290	260	0.18	43	17.6
310	280	0.16	45	17.8
330	300	0.15	46	18.1
350	320	0.14	47	18.4
370	340	0.13	49	18.6
390	360	0.13	50	18.9
410	380	0.12	51	19.1
430	400	0.11	53	19.4

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

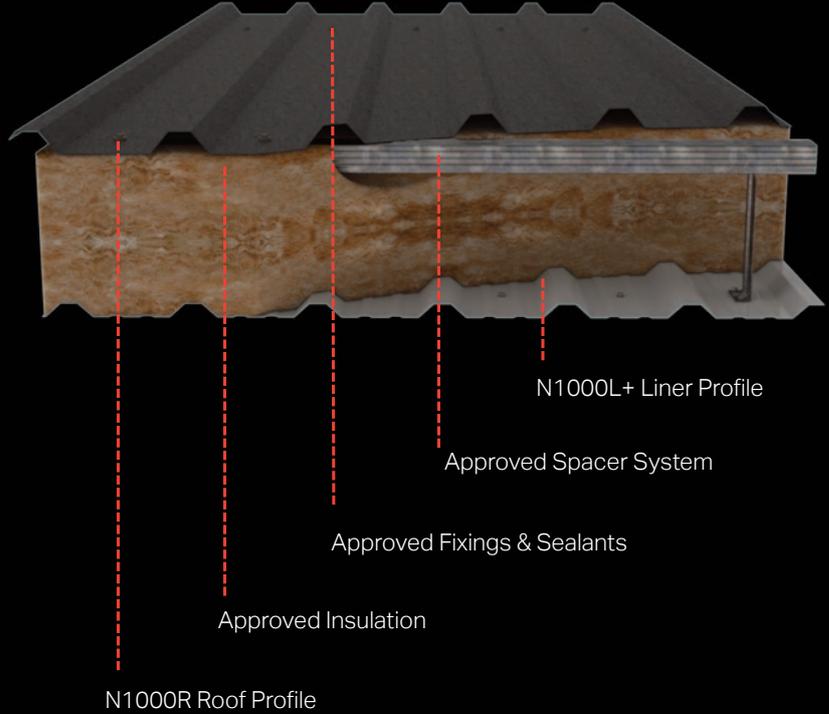
External Finish	Spacer System	Insulation (A1)	Fixings	Sealants	Roof Lights
Mission XP40®	Ash & Lacy	Knauf	SFS Intec	HS Butyl	Brett Martin
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal	Hambleside Danelaw
GreenCoat® Hiarc Max		Superglass	Fixfast		Filon Products
Granite® HDX		Isover	Fixing Point		

¹ Fixing Point Spacer System not included within LPCB Certification

*Subject to specification, application & approval

PRX-RS[®]-02 System Benefits

- 25 Year Full System Guarantee
- LPCB Certification LPS1181 EXT-B (Subject to system specification)
- Specifications available for use under PV & Safety Line Systems[#]
- Economic N1000L+ Liner Profile
- Suitable for Roof Pitch down to 4 Degrees
- Suitable for barrel vault roof
- Enhanced curved ridge detail available
- Building Regulations Compliant



Protex[®] System Benefits

- Protex[®] Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex[®] Approved Fabricator network
- Industry leading Protex[®] Approved supply network

External Profile:
N1000R Roof Profile



Liner Profile:
N1000L+ Liner Profile



¹.Subject to PV System Approval and specified external finish

Protex® Roof System 02

The **PRX-RS®-02** offers a tailor-made built up roof system combining high performance external finishes, A1 Non-combustible Insulation and an economical Liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth and design can be configured to meet the project specific thermal, acoustic, air tightness and fire performance with enhanced system's available.

The external N1000R Roof Profile can be specified in a range of high performance external finishes, offering external finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes.

The N1000L+ Liner profile offers an economical solution incorporating a 19mm light weight profile into the system. The N1000L+ Profile is available in Bright White as standard and combined with a crank curved ridge detail can offer reductions in air permeability.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
150	120	0.36	41	12.6
170	140	0.31	43	12.8
190	160	0.27	44	13.1
210	180	0.24	46	13.3
230	200	0.22	47	13.6
250	220	2.00	48	13.9
270	240	0.18	49	14.1
290	260	0.17	50	14.4
310	280	0.15	51	14.6
330	300	0.15	52	14.9
350	320	0.14	53	15.2
370	340	0.13	54	15.4
390	360	0.12	55	15.7
410	380	0.12	55	15.9
430	400	0.11	56	16.2

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

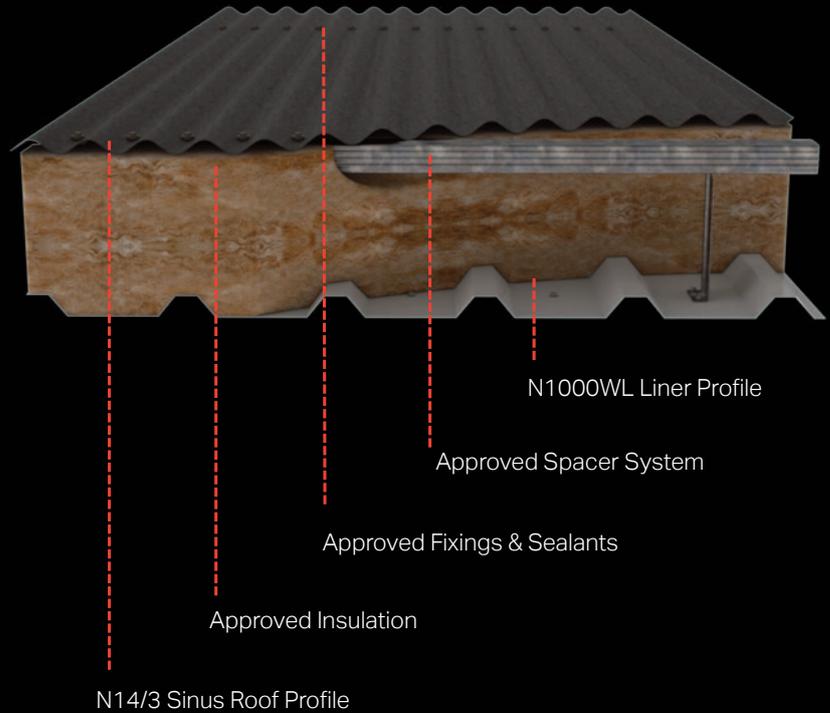
External Finish	Spacer System	Insulation (A1)	Fixings	Sealants	Roof Lights
Mission XP40*	Ash & Lacy	Knauf	SFS Intec	HS Butyl	Brett Martin
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal	Hambleside Danelaw
GreenCoat® Hiarc Max		Superglass	Fixfast		Filon Products
Granite® HDX		Isover	Fixing Point		

¹ Fixing Point Spacer System not included within LPCB Certification

*Subject to specification, application & approval

PRX-RS®-03 System Benefits

- 25 Year Full System Guarantee
- LPCB Certification LPS1181 EXT-B (Subject to system specification)
- Specifications available for use under PV & Safety Line Systems#
- Class B - Non-fragile N1000WL Liner Profile
- Suitable for Roof Pitch down to 4 Degrees
- Enhanced curved ridge detail available
- Building Regulations Compliant



Protex® System Benefits

- Protex® Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex® Approved Fabricator network
- Industry leading Protex® Approved supply network

External Profile:

N14/3 Sinus Roof Profile



Liner Profile:

N1000WL Liner Profile



¹.Subject to PV System Approval and specified external finish

Protex® Roof System 03

The **PRX-RS®-03** offers a tailor-made built up roof system combining high performance external finishes, A1 Non-combustible Insulation and a Walkable Liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth and design can be configured to meet the project specific thermal, acoustic, air tightness and fire performance with enhanced system's available.

The external N14/3 Sinus Roof Profile can be specified in a range of high performance external finishes, offering external finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes.

The N1000WL Walkable Liner profile offers a Class B non-fragile working platform when fully fitted, reducing installation times on site. The N1000WL Profile is available in Bright White as standard and combined with a crank curved ridge detail can offer reductions in air permeability.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
139	120	0.39	49	15.8
159	140	0.32	51	16.0
179	160	0.28	52	16.3
199	180	0.25	53	16.5
219	200	0.22	54	16.8
239	220	2.00	55	17.1
259	240	0.18	56	17.3
279	260	0.18	57	17.6
299	280	0.16	58	17.8
319	300	0.15	59	18.1
339	320	0.14	60	18.4
359	340	0.13	61	18.6
379	360	0.13	62	18.9
399	380	0.12	62	19.1
419	400	0.11	63	19.4

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

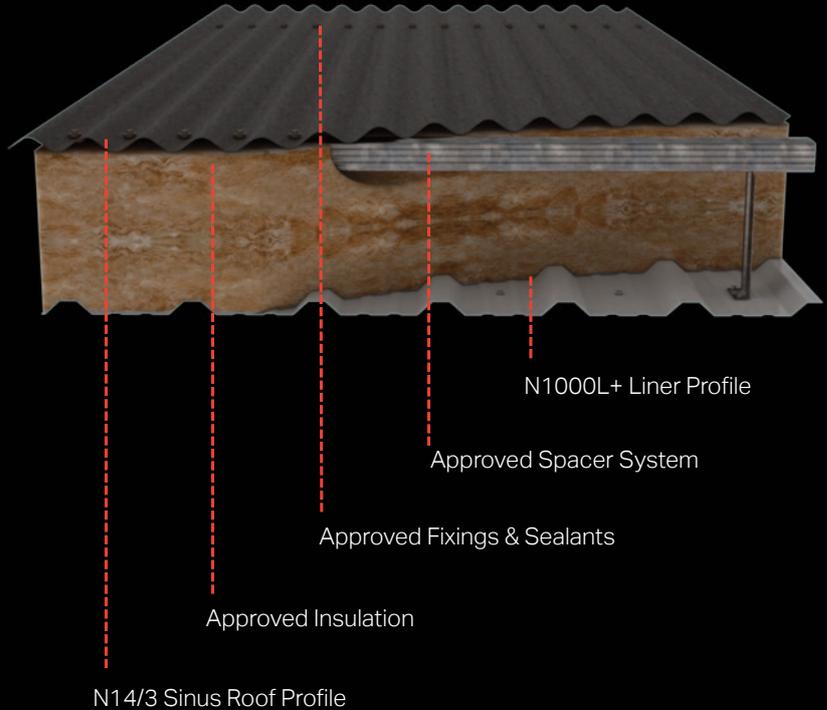
External Finish	Spacer System	Insulation (A1)	Fixings	Sealants	Roof Lights
Mission XP40®	Ash & Lacy	Knauf	SFS Intec	HS Butyl	Brett Martin
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal	Hambleside Danelaw
GreenCoat® Hiarc Max		Superglass	Fixfast		Filon Products
Granite® HDX		Isover	Fixing Point		

¹ Fixing Point Spacer System not included within LPCB Certification

*Subject to specification, application & approval

PRX-RS[®]-04 System Benefits

- 25 Year Full System Guarantee
- LPCB Certification LPS1181 EXT-B (Subject to system specification)
- Specifications available for use under PV & Safety Line Systems[#]
- Economic N1000L+ Liner Profile
- Suitable for Roof Pitch down to 4 Degrees
- Enhanced curved ridge detail available
- Building Regulations Compliant



Protex[®] System Benefits

- Protex[®] Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex[®] Approved Fabricator network
- Industry leading Protex[®] Approved supply network

External Profile:

N14/3 Sinus Roof Profile



Liner Profile:

N1000L+ Liner Profile



Protex® Roof System 04

The **PRX-RS®-04** offers a tailor-made built up roof system combining high performance external finishes, A1 Non-combustible Insulation and an economical Liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth and design can be configured to meet the project specific thermal, acoustic, air tightness and fire performance with enhanced system's available.

The external N14/3 Sinus Roof Profile can be specified in a range of high performance external finishes, offering external finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes.

The N1000L+ Liner profile offers an economical solution incorporating a 19mm light weight profile into the system. The N1000L+ Profile is available in Bright White as standard and combined with a crank curved ridge detail can offer reductions in air permeability.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
139	120	0.36	38	12.6
159	140	0.31	40	12.8
179	160	0.27	42	13.1
199	180	0.24	44	13.3
219	200	0.21	46	13.6
239	220	0.19	47	13.9
259	240	0.18	49	14.1
279	260	0.17	50	14.4
299	280	0.15	51	14.6
319	300	0.15	52	14.9
339	320	0.14	53	15.2
359	340	0.13	55	15.4
379	360	0.12	56	15.7
399	380	0.12	57	15.9
419	400	0.11	58	16.2

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

External Finish	Spacer System	Insulation (A1)	Fixings	Sealants	Roof Lights
Mission XP40*	Ash & Lacy	Knauf	SFS Intec	HS Butyl	Brett Martin
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal	Hambleside Danelaw
GreenCoat® Hiarc Max		Superglass	Fixfast		Filon Products
Granite® HDX		Isover	Fixing Point		

¹ Fixing Point Spacer System not included within LPCB Certification

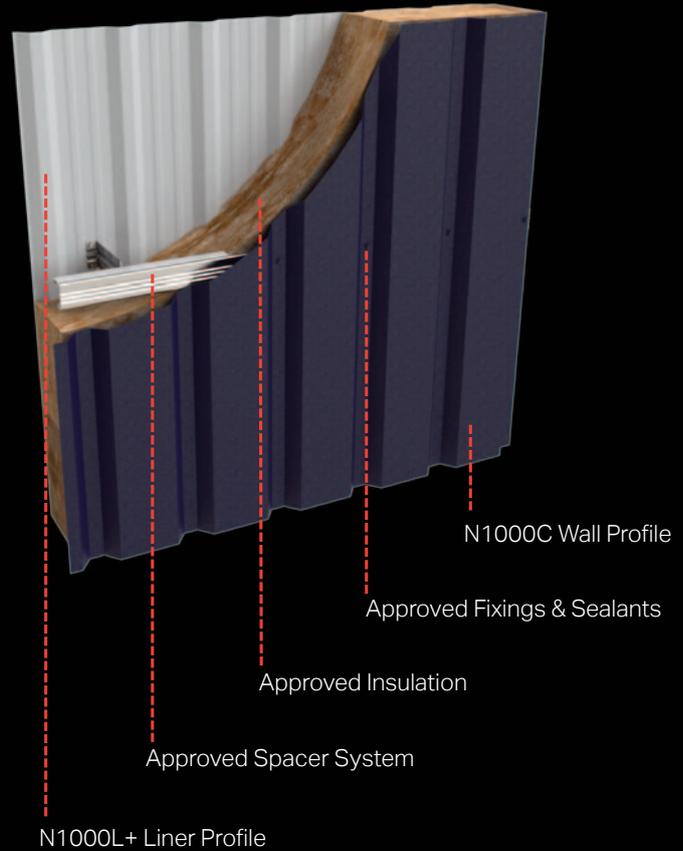
*Subject to specification, application & approval

PRX-WS[®]-01 System Benefits

- 25 Year Full System Guarantee
- Can be specified as A1- Non-combustible System
- LPCB Certification LPS1181 EXT-B
(Subject to system specification)
- A1 – Non-combustible Mineral Wool Insulation
- Building Regulations Compliant

Protex[®] System Benefits

- Protex[®] Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex[®] Approved Fabricator network
- Industry leading Protex[®] Approved supply network



PRX-FWS-01-E240/I15 Fire Wall System

The Protex[®] Wall Systems have been tested by industry leading testing houses including WarringtonFire & BRE Global to BS476 Part 22. The PRX-WS[®]-01 can be upgraded to the PRX-FWS-01-E240/I15 System to offer 240 Minutes Integrity and 15 Minutes Insulation. For the latest technical documentation and standard details, contact the technical department.

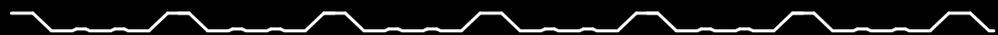
External Profile:

N1000C Wall Profile



Liner Profile:

N1000L+ Liner Profile



Protex® Wall System 01

The **PRX-WS®-01** offers a tailor-made built up wall system combining high performance external finishes, A1 Non-combustible Insulation and a light weight liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth can be configured to meet the project specific thermal, acoustic and fire performance with enhanced system designs available.

The external N1000C Wall Profile, vertically orientated, can be specified in a range of high performance external finishes, offering external finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes. The external finish can be specified in an A1 rated finish to offer a complete Non-Combustible Wall System.

The PRX-WS®-01 System can be upgraded to the PRX-FWS-01-E240/I15 Fire Wall System. The system has been tested to BS476 Part 22 to offer 240 Minutes Integrity and 15 Minutes Insulation.

The N1000L+ Liner profile offers an economical solution incorporating a 19mm light weight profile into the system. The N1000L+ Profile is available in Bright White Liner as standard with an A1 Fire Classification.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)***	Thermal Performance (W/m²k)**	Acoustic Performance RW (db)***	System Weight (Kg/m²)**
150	120	0.35	39	16.2
170	140	0.30	40	16.4
190	160	0.26	42	16.7
210	180	0.23	43	16.9
230	200	0.21	45	17.2
250	220	0.19	46	17.5
270	240	0.18	47	17.7

For values above stated figures, contact technical department.

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

External Finish	Spacer System	Insulation (A1)	Fixings	Sealants
Mission XP40*	Ash & Lacy	Knauf	SFS Intec	HS Butyl
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal
GreenCoat® Hiarc Max		Superglass	Fixing Point	
Granite® HDX		Isover	Fixfast	

¹ Fixing Point Spacer System not included within LPCB Certification

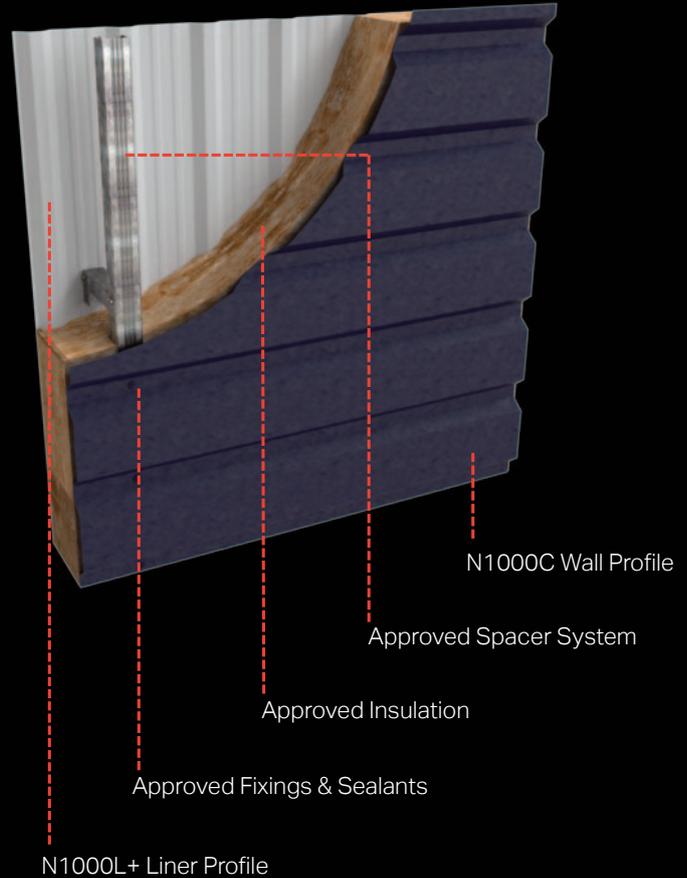
*Subject to specification, application & approval

PRX-WS[®]-02 System Benefits

- 25 Year Full System Guarantee
- Can be specified as A1- Non-combustible System
- LPCB Certification LPS1181 EXT-B
(Subject to system specification)
- A1 – Non-combustible Mineral Wool Insulation
- Building Regulations Compliant

Protex[®] System Benefits

- Protex[®] Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex[®] Approved Fabricator network
- Industry leading Protex[®] Approved supply network



PRX-FWS-02-E240/I15 Fire Wall System

The Protex[®] Wall Systems have been tested by industry leading testing houses including WarringtonFire & BRE Global to BS476 Part 22. The PRX-WS[®]-02 can be upgraded to the PRX-FWS-02-E240/I15 System to offer 240 Minutes Integrity and 15 Minutes Insulation. For the latest technical documentation and standard details, contact the technical department.

External Profile:

N1000C Wall Profile



Liner Profile:

N1000L+ Liner Profile



Protex® Wall System 02

The **PRX-WS®-02** offers a tailor-made built up wall system combining high performance external finishes, A1 Non-combustible Insulation and a light weight liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth can be configured to meet the project specific thermal, acoustic and fire performance with enhanced system designs available.

The external N1000C Wall Profile, Horizontally orientated, can be specified in a range of high performance external finishes offering external finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes. The external finish can be specified in an A1 rated finish to offer a complete Non-Combustible Wall System.

The PRX-WS®-02 System can be upgraded to the PRX-FWS-02-E240/I15 Fire Wall System. The system has been tested to BS476 Part 22 to offer 240 Minutes Integrity and 15 Minutes Insulation.

The N1000L+ Liner profile offers an economical solution incorporating a 19mm light weight profile into the system. The N1000L+ Profile is available in Bright White Liner as standard with an A1 Fire Classification.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
150	120	0.37	41	16.2
170	140	0.32	42	16.4
190	160	0.28	44	16.7
210	180	0.25	45	16.9
230	200	0.22	47	17.2

For values above stated figures, contact technical department.

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

External Finish	Spacer System	Insulation (A1)	Fixings	Sealants
Mission XP40®	Ash & Lacy	Knauf	SFS Intec	HS Butyl
GreenCoat® Pural BT	Fixing Point¹	URSA	Ejot	Premseal
GreenCoat® Hiarc Max		Superglass	Fixing Point	
Granite® HDX		Isover	Fixfast	

¹ Fixing Point Spacer System not included within LPCB Certification

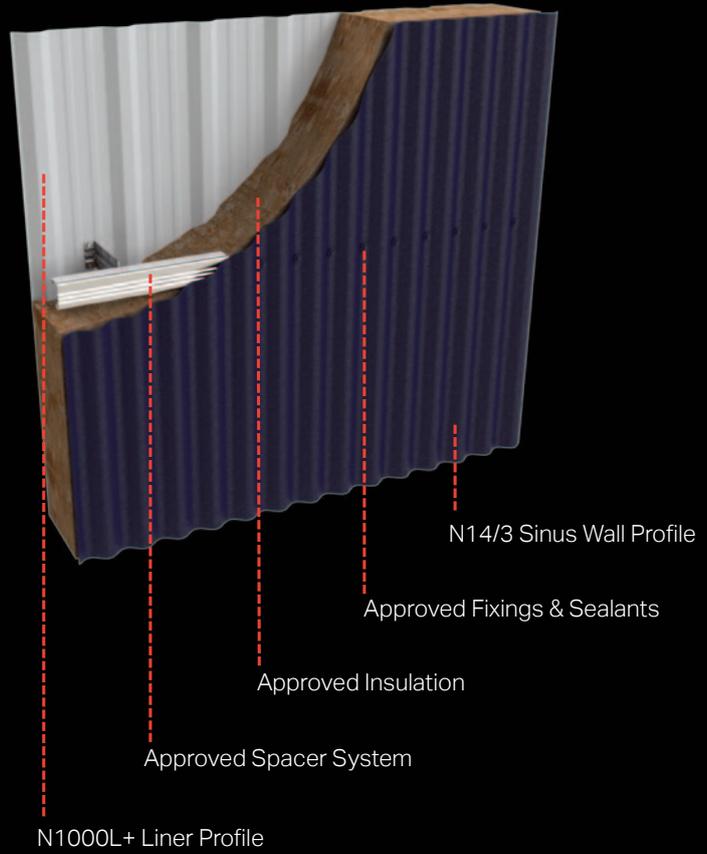
*Subject to specification, application & approval

PRX-WS[®]-03 System Benefits

- 25 Year Full System Guarantee
- Can be specified as A1
- Non-combustible System
- LPCB Certification LPS1181 EXT-B
(Subject to system specification)
- A1 – Non-combustible Mineral Wool Insulation
- Building Regulations Compliant

Protex[®] System Benefits

- Protex[®] Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex[®] Approved Fabricator network
- Industry leading Protex[®] Approved supply network



External Profile:

N14/3 Sinus Wall Profile



Liner Profile:

N1000L+ Liner Profile



Protex® Wall System 03

The **PRX-WS®-03** offers a tailor-made built up wall system combining high performance external finishes, A1 Non-combustible Insulation and a light weight liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth can be configured to meet the project specific thermal, acoustic and fire performance with enhanced system designs available.

The external N14/3 Sinus Wall Profile, vertically orientated, can be specified in a range of high performance external finishes offering finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes. The external finish can be specified in an A1 rated finish to offer a complete Non-Combustible Wall System.

The N1000L+ Liner profile offers an economical solution incorporating a 19mm light weight profile into the system. The N1000L+ Profile is available in Bright White Liner as standard with an A1 Fire Classification.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
139	120	0.36	36	16.2
159	140	0.31	38	16.4
179	160	0.27	40	16.7
199	180	0.24	42	16.9
219	200	0.21	43	17.2
239	220	0.19	45	17.5
259	240	0.18	46	17.7

For values above stated figures, contact technical department.

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

External Finish	Spacer System	Insulation (A1)	Fixings	Sealants
Mission XP40®	Ash & Lacy	Knauf	SFS Intec	HS Butyl
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal
GreenCoat® Hiarc Max		Superglass	Fixing Point	
Granite® HDX		Isover	Fixfast	

¹ Fixing Point Spacer System not included within LPCB Certification

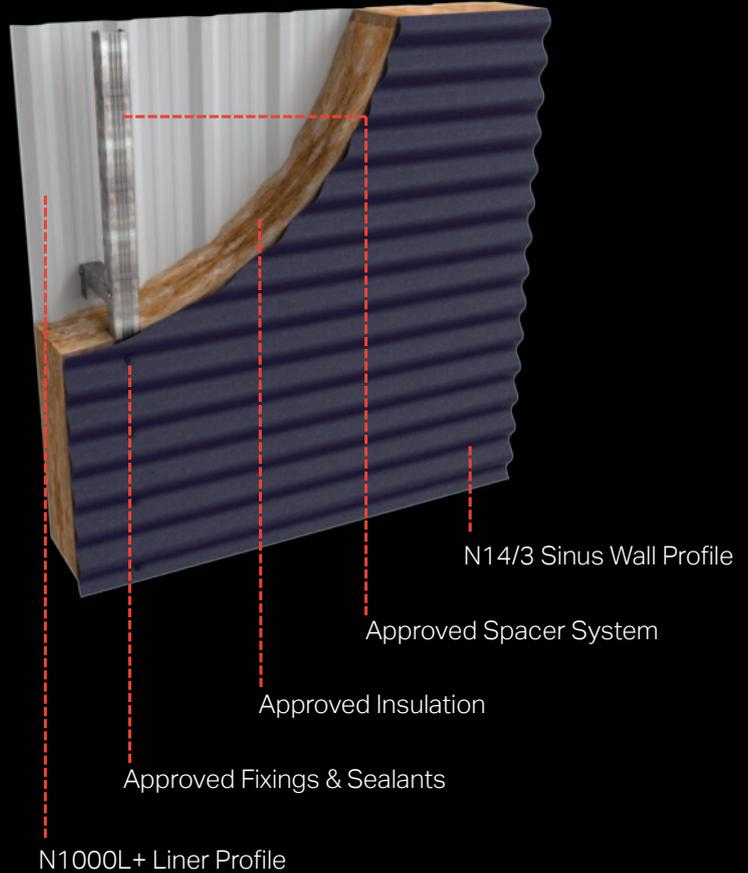
*Subject to specification, application & approval

PRX-WS®-04 System Benefits

- 25 Year Full System Guarantee
- Can be specified as A1-Non-combustible System
- LPCB Certification LPS1181 EXT-B (Subject to system specification)
- A1 – Non-combustible Mineral Wool Insulation
- Building Regulations Compliant

Protex® System Benefits

- Protex® Approved Contractor network
- NBS Specifications
- Approved Standard details
- Bespoke Thermal & Acoustic calculations
- Extensive Technical Support
- Protex® Approved Fabricator network
- Industry leading Protex® Approved supply network



External Profile:

N14/3 Sinus Wall Profile



Liner Profile:

N1000L+ Liner Profile



Protex® Wall System 04

The **PRX-WS®-04** offers a tailor-made built up wall system combining high performance external finishes, A1 Non-combustible Insulation and a light weight liner profile alongside industry leading Protex® Approved Suppliers to offer complete 25 Year System Guarantee.*

The system depth can be configured to meet the project specific thermal, acoustic and fire performance with enhanced system designs available.

The external N14/3 Sinus Wall Profile, Horizontally orientated, can be specified in a range of high performance external finishes offering external finish warranty periods up to 40 Years. The range of embossed, textured or smooth external finishes offer a solution to cover a full range of building envelopes. The external finish can be specified in an A1 rated finish to offer a complete Non-Combustible Wall System.

The N1000L+ Liner profile offers an economical solution incorporating a 19mm light weight profile into the system. The N1000L+ Profile is available in Bright White Liner as standard with an A1 Fire Classification.

The Protex® Approved components can be sourced directly through our industry leading Protex® Approved supply partners to ensure the highest levels of product performance and support.

Performance

Total System Depth(mm)	Bracket / Insulation Thickness 0.04W/mk (mm)	Thermal Performance (W/m²k)	Acoustic Performance RW (db)	System Weight (Kg/m²)
139	120	0.37	43	16.2
159	140	0.32	45	16.4
179	160	0.28	47	16.7
199	180	0.25	49	16.9
219	200	0.23	50	17.2

For values above stated figures, contact technical department.

Data provided for guidance. Contact technical for bespoke calculations and specifications. Data based on 1800mm Rail Centres & 1000mm Bracket Centres. Insulation 0.04 Min Spacer System / Recommended 10% compression. Acoustic calculations do not include structural connections

Protex® Approved Components

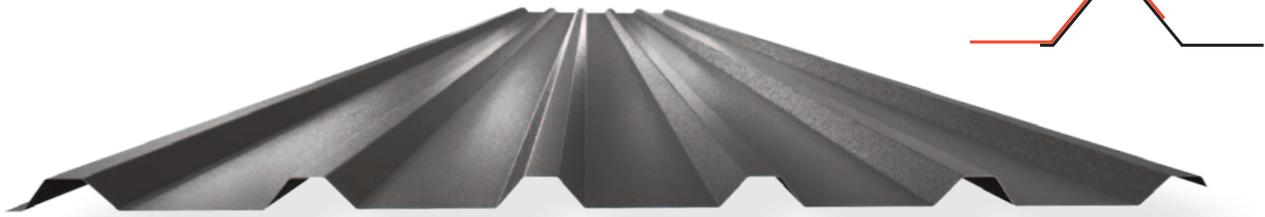
External Finish	Spacer System	Insulation (A1)	Fixings	Sealants
Mission XP40*	Ash & Lacy	Knauf	SFS Intec	HS Butyl
GreenCoat® Pural BT	Fixing Point ¹	URSA	Ejot	Premseal
GreenCoat® Hiarc Max		Superglass	Fixing Point	
Granite® HDX		Isover	Fixfast	

¹ Fixing Point Spacer System not included within LPCB Certification

*Subject to specification, application & approval

N1000R

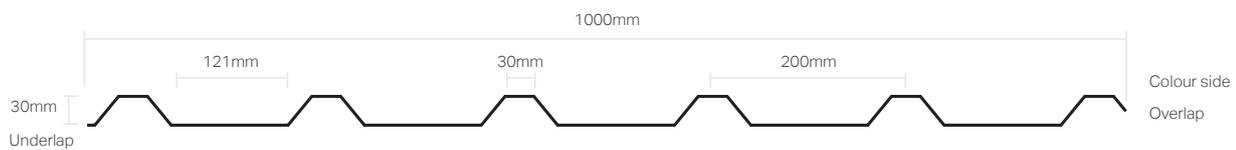
Profile:



Side lap detail:



N1000R:



Profile Geometry:

Cover Width: 1000mm	Profile Depth: 30mm	Pitch: 2000mm	Crown Width: 30mm	Trough Width: 121mm	Gauge: 0.7mm	Weight: 6.7kg/m ²
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Profiles Manufacture in accordance with BS EN 14782

Profile Variations:

N1000RR Roof Profile - Mini-Rib



Self Curve - Min 40m Radius

N1000R/EQ Equal Lap Roof Profile



Crimp Curve - Available

Anti-Condensation Fleece - Available

Product Specification:

Minimum Roof Pitch

- Design - 4 Degrees
- After deflection - 3.5 Degrees

Sheet Length

- Min Length - 1 Metres
- Max Standard Length** - 16 Metres

Fire Classification

- Single Skin - Broof t4
- Protex® System - Broof t4

External Finish:

	<u>Mission XP40®</u>	<u>Granite® HDX</u>	<u>GreenCoat® Hiarc Max</u>	<u>GreenCoat® Pural BT</u>
External Finish Warranty*	40 Years	35 Years	40 Years	40 Years
External Finish Thickness	200 Microns	55 Microns	40 Microns	50 Microns
Appearance	Steon®	Slight Texture	Slight Texture	Slight Texture
Colour Range	Solid	Solid & Metallic	Solid & Metallic	Solid & Metallic
Corrosion Classification	RC5	RC5	RC5	RC5
UV Classification	RUV4	RUV4	RUV4	RUV4
Fire Classification	C,S2-D0	A1/A2	A1	A1
Environmental Rating	 	 	 	  

* Warranty subject to application, colour and location.

** Max length subject to transport limitations. For lengths outside the limitations, speak to the team.

Typical Fixing Detail:

Sheet Ends

- Every Trough - Main Fix

Intermediate Supports

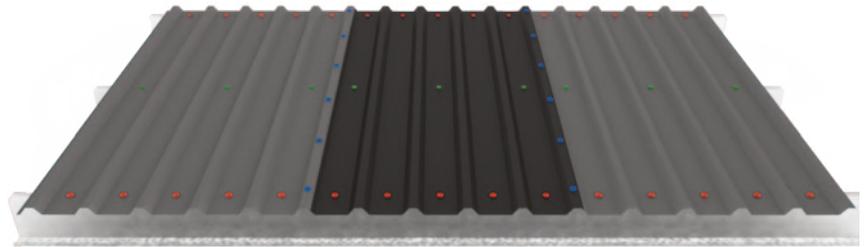
- Alternative Trough - Main Fix

End laps

- Every Trough - Main Fix
- Sealant – 2x Runs 6x5 Butyl Mastic

Side Lap

- 450mm Centres - Stitcher fixing
- Sealant – 1x Run 6x5 Butyl Mastic

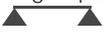


Load Tables

Positive Imposed Load (Gravity) kN/m²

Span Type	Gauge (mm)	L/150 Span (mm)							L/200 Span (mm)						
		1000	1250	1500	1750	2000	2250	2500	1000	1250	1500	1750	2000	2250	2500
Single Span 	0.5	3.59	2.71	1.88	1.38	1.06	0.84	0.68	3.59	2.69	1.56	0.98	0.66	0.46	0.34
	0.7	6.84	4.38	3.04	1.99	1.34	0.94	0.68	6.84	4.1	2.38	1.5	1	0.7	0.51
Double Span 	0.5	2.05	1.49	1.13	0.89	0.72	0.59	0.5	2.05	1.49	1.13	0.89	0.72	0.59	0.5
	0.7	3.73	2.66	2	1.57	1.26	1.04	0.87	3.73	2.66	2	1.57	1.26	1.04	0.86
Multi Span 	0.5	2.43	1.77	1.35	1.06	0.86	0.72	0.6	2.43	1.77	1.35	1.06	0.86	0.72	0.56
	0.7	4.43	3.18	2.41	1.89	1.52	1.25	1.05	4.43	3.18	2.41	1.89	1.52	1.17	0.86

Negative Imposed Load (Uplift) kN/m²

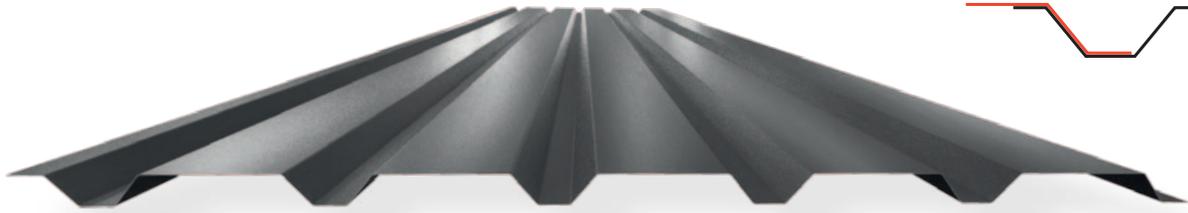
Span Type	Gauge (mm)	L/150 Span (mm)							L/200 Span (mm)						
		1000	1250	1500	1750	2000	2250	2500	1000	1250	1500	1750	2000	2250	2500
Single Span 	0.5	3.59	2.46	1.61	1.01	0.68	0.48	0.35	3.59	2.08	1.21	0.76	0.51	0.36	0.26
	0.7	6.22	3.98	2.45	1.55	1.04	0.73	0.53	6.21	3.18	1.84	1.16	0.78	0.55	0.4
Double Span 	0.5	2.14	1.56	1.19	0.94	0.76	0.63	0.53	2.14	1.56	1.19	0.94	0.76	0.66	0.43
	0.7	3.9	2.8	2.12	1.66	1.34	1.1	0.88	3.9	2.8	2.12	1.66	1.29	0.91	0.66
Multi Span 	0.5	2.53	1.84	1.41	1.12	0.91	0.76	0.58	2.53	1.84	1.41	1.12	0.85	0.6	0.43
	0.7	4.62	3.34	2.53	1.99	1.61	1.21	0.88	4.62	3.34	2.53	1.93	1.29	0.91	0.66

 Deflection Controls

- Yield Stress (N/mm²) S280
- Load Factor - 1.5
- Figures shaded governed by deflection
- Fixing Checks must be considered separately
- Load Span Tables to EN 1993-1-3 (Eurocode EC3)

N1000C

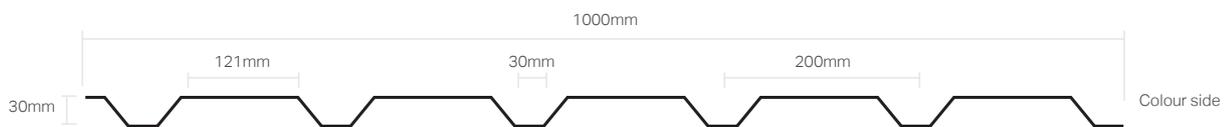
Profile:



Side lap detail:



N1000C:



Profile Geometry:

Cover Width: 1000mm	Profile Depth: 30mm	Pitch: 200mm	Crown Width: 121mm	Trough Width: 30mm	Gauge: 0.5mm 0.7mm	Weight: 4.8kg/m ² 6.7kg/m ²
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Profiles Manufacture in accordance with BS EN 14782

Profile Variations:

N1000CR WallProfile



If using 0.5mm gauge material for vertical and horizontal wall profiles, the N1000CR with Mini-ribs is recommended.

Self Curve - Min 40m Radius

Crimp Curve - Available

Product Specification:

Sheet Length

- Min Length - 1 Metres
- Max Standard Length** - 16 Metres

Fire Classification

- Suitable for use in Protex® System

External Finish:

	<u>Mission XP40®</u>	<u>Granite® HDX</u>	<u>GreenCoat® Hiarc Max</u>	<u>GreenCoat® Pural BT</u>
External Finish Warranty*	40 Years	35 Years	40 Years	40 Years
External Finish Thickness	200 Microns	55 Microns	40 Microns	50 Microns
Appearance	Steon®	Slight Texture	Slight Texture	Slight Texture
Colour Range	Solid	Solid & Metallic	Solid & Metallic	Solid & Metallic
Corrosion Classification	RC5	RC5	RC5	RC5
UV Classification	RUV4	RUV4	RUV4	RUV4
Fire Classification	C,S2-D0	A1/A2	A1	A1
Environmental Rating	☑️ ☑️	☑️ ☑️	☑️ ☑️	☑️ ☑️ ☑️

* Warranty subject to application, colour and location.

** Max length subject to transport limitations. For lengths outside the limitations, speak to the team.

Typical Fixing Detail:

Sheet Ends

- Every Trough - Main Fix

Intermediate Supports

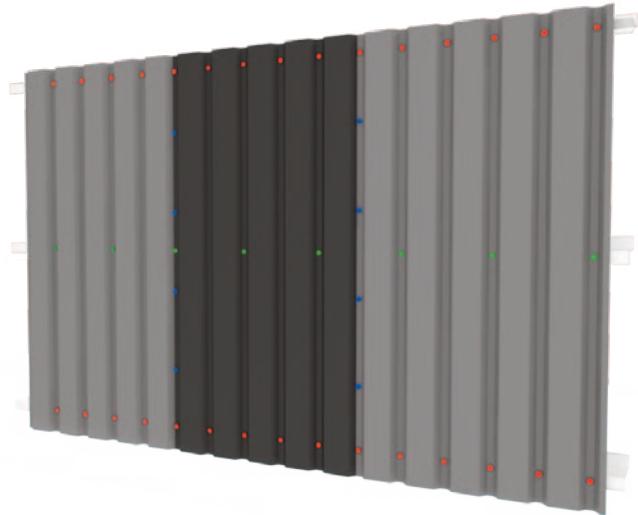
- Alternative Trough - Diamon Pattern

End laps

- Every Trough - Main Fix

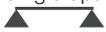
Side Lap

- Subject to design



Load Tables

Positive Imposed Load (Gravity) kN/m²

Span Type	Gauge (mm)	L/150 Span (mm)							L/200 Span (mm)						
		1000	1250	1500	1750	2000	2250	2500	1000	1250	1500	1750	2000	2250	2500
Single Span 	0.5	3.59	2.46	1.61	1.01	0.68	0.48	0.35	3.59	2.08	1.21	0.76	0.51	0.36	0.26
	0.7	6.22	3.98	2.45	1.55	1.04	0.73	0.53	6.21	3.18	1.84	1.16	0.78	0.55	0.4
Double Span 	0.5	2.14	1.56	1.19	0.94	0.76	0.63	0.53	2.14	1.56	1.19	0.94	0.76	0.6	0.43
	0.7	3.90	2.8	2.12	1.66	1.34	1.1	0.88	3.9	2.8	2.12	1.66	1.29	0.91	0.66
Multi Span 	0.5	2.53	1.84	1.41	1.12	0.91	0.76	0.58	2.53	1.84	1.41	1.12	0.85	0.6	0.43
	0.7	4.62	3.34	2.53	1.99	1.61	1.21	0.88	4.62	3.34	2.53	1.93	1.29	0.91	0.66

Negative Imposed Load (Uplift) kN/m²

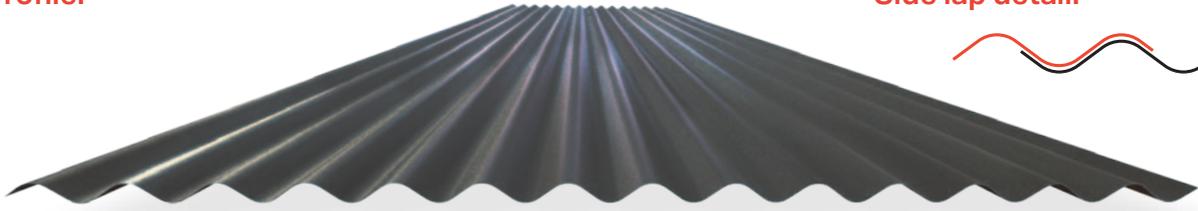
Span Type	Gauge (mm)	L/150 Span (mm)							L/200 Span (mm)						
		1000	1250	1500	1750	2000	2250	2500	1000	1250	1500	1750	2000	2250	2500
Single Span 	0.5	3.59	2.71	1.88	1.31	0.88	0.62	0.45	3.59	2.69	1.56	0.98	0.66	0.46	0.34
	0.7	6.84	4.38	3.04	1.99	1.34	0.94	0.68	6.84	4.1	2.38	1.5	1	0.7	0.51
Double Span 	0.5	2.05	1.49	1.13	0.89	0.72	0.59	0.5	2.05	1.49	1.13	0.89	0.72	0.59	0.5
	0.7	3.73	2.66	2	1.57	1.26	1.04	0.87	3.73	2.66	2	1.57	1.26	1.04	0.86
Multi Span 	0.5	2.43	1.77	1.35	1.06	0.86	0.72	0.6	2.43	1.77	1.35	1.06	0.86	0.72	0.56
	0.7	4.43	3.18	2.14	1.89	1.52	1.25	1.05	4.43	3.18	2.41	1.89	1.52	1.17	0.86

 Deflection Controls

- Yield Stress (N/mm²) S280
- Load Factor - 1.5
- Figures shaded governed by deflection
- Fixing Checks must be considered separately
- Load Span Tables to EN 1993-1-3 (Eurocode EC3)

N14/3 Sinus

Profile:



Side lap detail:



N14/3 Sinus:



Profile Geometry:

Cover Width: 990mm	Profile Depth: 19mm	Pitch: 76mm	Crown Width: R19	Trough Width: R19	Gauge: 0.5mm 0.7mm	Weight: 4.8kg/m ² 6.7kg/m ²
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Profiles Manufacture in accordance with BS EN 14782

Self Curve - Min 40m Radius

Anti-Condensation Fleece - Available

Product Specification:

Sheet Length

- Min Length - 1 Metres
- Max Standard Length* -8 Metres

Fire Classification

- Single Skin - Broof t4
- Protex® System - Broof t4

External Finish:

	<u>Mission XP40®</u>	<u>Granite® HDX</u>	<u>GreenCoat® Hiarc Max</u>	<u>GreenCoat® Pural BT</u>
External Finish Warranty*	40 Years	35 Years	40 Years	40 Years
External Finish Thickness	200 Microns	55 Microns	40 Microns	50 Microns
Appearance	Steon®	Slight Texture	Slight Texture	Slight Texture
Colour Range	Solid	Solid & Metallic	Solid & Metallic	Solid & Metallic
Corrosion Classification	RC5	RC5	RC5	RC5
UV Classification	RUV4	RUV4	RUV4	RUV4
Fire Classification	C,S2-D0	A1/A2	A1	A1
Environmental Rating	 	 	 	  

* Warranty subject to application, colour and location.

** Max length subject to transport limitations. For lengths outside the limitations, speak to the team.

Typical Fixing Detail:

Sheet Ends

- Every 3no pitch

Intermediate Supports

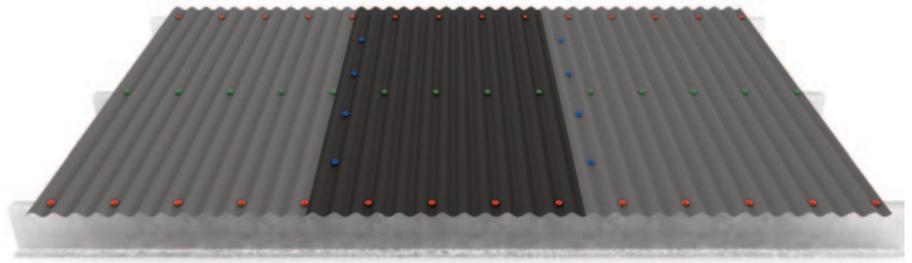
- Every 3no pitch

End laps

- Every 3no Pitch
- Sealant – 2x Runs 6x5 Butyl Mastic

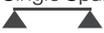
Side Lap

- Fixing - 450mm Centres
- Sealant – 1x Run 6x5 Butyl Mastic

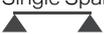


Load Tables

Positive Imposed Load (Gravity and Uplift) kN/m²

Span Type	Gauge (mm)	L/200 Span (mm)															
		1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
Single Span 	0.5	1.75	1.31	1.01	0.80	0.64	0.52	0.43	0.36	0.30	0.25	0.22	0.19	0.16	0.14	0.13	0.11
	0.7	2.45	1.84	1.42	1.11	0.89	0.73	0.60	0.50	0.42	0.36	0.31	0.26	0.23	0.20	0.18	0.16
Double Span 	0.5	2.91	2.19	1.69	1.33	1.06	0.86	0.71	0.59	0.50	0.42	0.36	0.31	0.27	0.24	0.21	0.19
	0.7	4.08	3.06	2.36	1.86	1.49	1.21	1.00	0.83	0.70	0.59	0.51	0.44	0.38	0.34	0.30	0.26
Multi Span 	0.5	2.91	2.19	1.69	1.33	1.06	0.86	0.71	0.59	0.50	0.42	0.36	0.31	0.27	0.24	0.21	0.19
	0.7	4.08	3.06	2.36	1.86	1.49	1.21	1.00	0.83	0.70	0.59	0.51	0.44	0.38	0.34	0.30	0.26

Positive & Negative Imposed Load (Gravity and Uplift) kN/m²

Span Type	Gauge (mm)	L/150 Span (mm)															
		1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
Single Span 	0.5	2.33	1.75	1.35	1.06	0.85	0.69	0.57	0.47	0.40	0.34	0.29	0.25	0.22	0.19	0.17	0.15
	0.7	3.26	2.45	1.89	1.49	1.19	0.97	0.80	0.66	0.56	0.48	0.41	0.35	0.31	0.27	0.24	0.22
Double Span 	0.5	3.41	2.25	1.42	0.95	0.67	0.49	0.36	2.33	1.35	0.85	0.57	0.4	0.29	0.29	0.22	0.21
	0.7	4.77	3.15	1.98	1.33	0.93	0.68	0.51	2.33	1.35	0.85	0.57	0.4	0.29	0.29	0.22	0.22
Multi Span 	0.5	3.88	2.92	2.25	1.77	1.42	1.15	0.95	0.79	0.67	0.57	0.49	0.42	0.36	0.32	0.28	0.25
	0.7	5.44	4.09	3.15	2.48	1.98	1.61	1.33	1.11	0.93	0.79	0.68	0.59	0.51	0.45	0.39	0.35

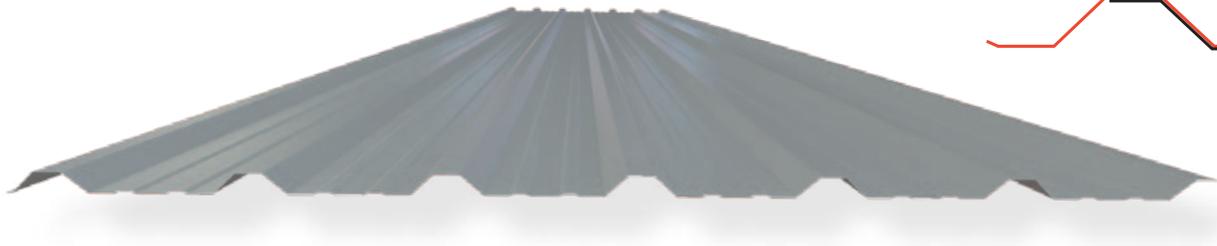
Negative Imposed Load (Gravity and Uplift) kN/m²

Span Type	Gauge (mm)	L/90 Span (mm)															
		1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5
Single Span 	0.5	3.41	2.82	2.25	1.77	1.42	1.15	0.95	0.79	0.67	0.57	0.49	0.42	0.36	0.32	0.28	0.25
	0.7	4.77	3.94	3.15	2.48	1.98	1.61	1.33	1.11	0.93	0.79	0.68	0.59	0.51	0.45	0.39	0.35
Double Span 	0.5	3.41	2.82	2.37	2.02	1.74	1.51	1.33	1.18	1.05	0.94	0.81	0.70	0.61	0.53	0.47	0.41
	0.7	4.77	3.94	3.31	2.82	2.43	2.12	1.86	1.65	1.47	1.32	1.13	0.98	0.85	0.75	0.66	0.58
Multi Span 	0.5	4.26	3.52	2.96	2.52	2.17	1.89	1.58	1.32	1.11	0.94	0.81	0.70	0.61	0.53	0.47	0.41
	0.7	5.96	4.93	4.14	3.53	3.04	2.65	2.21	1.85	1.55	1.32	1.13	0.98	0.85	0.75	0.66	0.58

- Yield Stress (N/mm²) S280
- Load Factor - 1.5
- Figures shaded governed by deflection
- Fixing Checks must be considered separately
- Load Span Tables to EN 1993-1-3 (Eurocode EC3)

N1000L+

Profile:



Side lap detail:



N1000L+:



Profile Geometry:

Cover Width: 1000mm	Profile Depth: 19mm	Pitch: 166mm	Crown Width: 23mm	Trough Width: 104mm	Gauge: 0.4mm	Weight: 6.7kg/m ²
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Profiles Manufacture in accordance with BS EN 14782

Profile Variations:

N1000PL+



Self Curve - Min 40m Radius

Crimp Curve - Available

Product Specification:

Sheet Length

- Min Length - 1 Metres
- Max Standard Length** - 8 Metres

Fire Classification

- EN13501-1A1

External Finish:

Finished Thickness
Appearance
Colour Range
Corrosion Classification
Fire Classification

Internal Polyester

20 Microns
Smooth
Bright White
CPI2
A1

* Warranty subject to application, colour and location.

** Max length subject to transport limitations. For lengths outside the limitations, speak to the team.

Typical Fixing Detail:

Sheet Ends

- Every Trough - Main Fix

Intermediate Supports

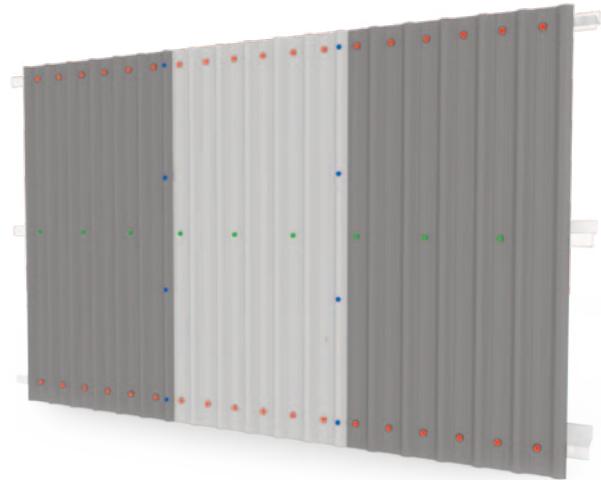
- Alternative Trough
- Fixing - Every Trough

End laps

- Sealant – 1x Run 6x5mm or 9x3mmmm Butyl Mastic
- Subject to design

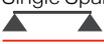
Side Lap

- Sealant – 1x Run 50x1mm Butyl Mastic



Load Tables

Positive Imposed Load (Gravity) kN/m²

Span Type	Gauge (mm)	L/200 Span (mm)															
		1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5
Single Span 	0.4	1.5	1.13	0.87	0.68	0.55	0.45	0.37	0.31	0.26	0.22	0.19	0.16	0.14	0.12	0.11	1.0
Double Span 	0.4	1.36	1.16	1.0	0.88	0.77	0.69	0.61	0.51	0.43	0.37	0.31	0.27	0.24	0.21	0.18	0.16
Multi Span 	0.4	1.64	1.4	1.22	1.06	0.91	0.74	0.61	0.51	0.43	0.37	0.31	0.27	0.24	0.21	0.18	0.16

Negative Imposed Load (Uplift) kN/m²

Span Type	Gauge (mm)	L/200 Span (mm)															
		1	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2	2.1	2.2	2.3	2.4	2.5
Single Span 	0.4	1.54	1.16	0.89	0.7	0.56	0.46	0.38	0.31	0.26	0.22	0.19	0.17	0.14	0.13	0.11	1.0
Double Span 	0.4	1.25	1.07	0.92	0.8	0.71	0.63	0.56	0.5	0.44	0.37	0.32	0.28	0.24	0.21	0.19	0.16
Multi Span 	0.4	1.51	1.29	1.12	0.98	0.86	0.76	0.63	0.52	0.44	0.37	0.32	0.28	0.24	0.21	0.19	0.16

 Deflection Controls

- Yield Stress (N/mm²) S280
- Load Factor - 1.5
- Figures shaded governed by deflection
- Fixing Checks must be considered separately
- Load Span Tables to EN 1993-1-3 (Eurocode EC3)

N1000WL

Profile:

Side lap detail:



N1000WL:



Profile Geometry:

Cover Width: 1000mm	Profile Depth: 30mm	Pitch: 200mm	Crown Width: 30mm	Trough Width: 121mm	Gauge: 0.7mm	Weight: 6.7kg/m ²
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Profiles Manufacture in accordance with BS EN 14782

Profile Variations:

N1000WL Pan Perforated



Self Curve - Min 40m Radius

Crimp Curve - Available

Product Specification:

Sheet Length

- Min Length - 1 Metres
- Max Standard Length** - 8 Metres

Fire Classification

- EN13501-1A1

External Finish:

Finished Thickness
Appearance
Colour Range
Corrosion Classification
Fire Classification

Internal Polyester

20 Microns
Smooth
Bright White
CPI2
A1

* Warranty subject to application, colour and location.

** Max length subject to transport limitations. For lengths outside the limitations, speak to the team.

Typical Fixing Detail:

Sheet Ends

- Every Trough - Main Fix

Intermediate Supports

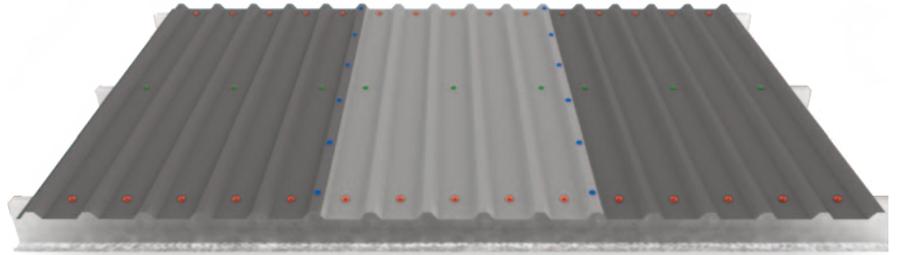
- Alternative Trough
- Fixing - Every Trough

End laps

- Sealant – 1x Run 6x5mm or 9x3mmmm Butyl Mastic
- Subject to design

Side Lap

- Sealant – 1x Run 50x1mm Butyl Mastic



Load Tables

Positive Imposed Load (Gravity) kN/m²

Span Type	Gauge (mm)	L/150 Span (mm)							L/200 Span (mm)						
		1000	1250	1500	1750	2000	2250	2500	1000	1250	1500	1750	2000	2250	2500
Single Span 	0.7	6.84	4.38	3.04	1.99	1.34	0.94	0.68	6.84	4.1	2.38	1.5	1	0.7	0.51
Double Span 	0.7	3.73	2.66	2	1.57	1.26	1.04	0.87	3.73	2.66	2	1.57	1.26	1.04	0.86
Multi Span 	0.7	4.43	3.18	2.41	1.89	1.52	1.25	1.05	4.43	3.18	2.41	1.89	1.52	1.17	0.86

Negative Imposed Load (Uplift) kN/m²

Span Type	Gauge (mm)	L/150 Span (mm)							L/200 Span (mm)						
		1000	1250	1500	1750	2000	2250	2500	1000	1250	1500	1750	2000	2250	2500
Single Span 	0.7	6.22	3.98	2.45	1.55	1.04	0.73	0.53	6.21	3.18	1.84	1.16	0.78	0.55	0.4
Double Span 	0.7	3.9	2.8	2.12	1.66	1.34	1.1	0.88	3.9	2.8	2.12	1.66	1.29	0.91	0.66
Multi Span 	0.7	4.62	3.34	2.53	1.99	1.61	1.21	0.88	4.62	3.34	2.53	1.93	1.29	0.91	0.66

 Deflection Controls

- Yield Stress (N/mm²) S220
- Load Factor - 1.5
- Figures shaded governed by deflection
- Fixing Checks must be considered separately
- Load Span Tables to EN 1993-1-3 (Eurocode EC3)

//

Our ability to provide technical support comes from a solid foundation of reliable test data.

Our ability to innovate comes from a combination of unrivalled enthusiasm and decent coffee.

//

Sam Hopton - Technical Manager



The Ultimate in External Finishes.

Mission XP40®
Granite® HDX
GreenCoat® Hiarc Max
GreenCoat® Pural BT

Further external finishes available

Mission XP40[®]

The mission we were set was to bring a solution to market that extended the life and performance of the building envelope. XP40[®] was developed from the ground up with every additional layer rigorously tested to ensure optimum unrivalled performance. Everything from the material substrate, to the configuration of the primer coat, right through to the external finish that is uniquely embossed with the Steon[®] emblem has allowed for the evolution of organically coated steel in way that has not been seen in a generation.

Mission XP40[®] brings a new level of performance that not only extends the life of your investment but reduces your carbon footprint at the same time. Tomorrow's external finish for today.

Granite[®] HDX

Granite[®] HDX by Arcelor Mittal is a high performing pre-painted external finish ideally suited for buildings requiring high levels of corrosion resistance and colour stability. The external finish is manufactured to perform, endure and remain colour stable even in aggressive environments. The external finish has a lightly grained appearance which enhances the surface hardness.

GreenCoat[®] by SSAB

Our unique partnership with SSAB enables us to offer a fresh new approach to the external coating options available for your building. The revolutionary GreenCoat[®] range gives creative and innovative options for buildings, whilst using the most sustainable colour coated steel products on the market. GreenCoat[®] offers an innovative; eco-conscious colour coated steel solution for the building industry and has been developed specifically to provide building envelopes and internal solutions with superior aesthetics, unrivalled performance and above all designed with the future in mind.

GreenCoat[®] Pural BT is available in regular and matt finishes and offers a wide range of colors inspired by Nordic nature. It uses a patented bio-based coating having Swedish rapeseed oil instead of traditional fossil oil in the paint, which is unique on the market.

GreenCoat[®] Hiarc Max colour coated steel is available in regular and matt finishes. It is available in a wide range of colors inspired by Nordic nature. GreenCoat[®] Hiarc Max is extremely durable (RC5 and Ruv5) and is specifically developed for Roof & Wall applications. GreenCoat[®] Hiarc Max possesses excellent weather resistance properties and offers extremely good corrosion resistance. The product is well suited for buildings in the harshest environments, like those near a coastline.

Our deep-rooted partnerships with the world's leading mills enables us to ensure we have the most advanced external finishes range available on the market to satisfy your building envelope needs.

External finish specifications

	<u>Mission XP40®</u>	<u>Granite® HDX</u>	<u>GreenCoat® Hiarc Max</u>	<u>GreenCoat® Pural BT</u>
External Finish Warranty*	40 Years	35 Years	40 Years	40 Years
External Finish Thickness	200 Microns	55 Microns	40 Microns	50 Microns
Appearance	Steon®	Slight Texture	Slight Texture	Slight Texture
Colour Range	Solid	Solid & Metallic	Solid & Metallic	Solid & Metallic

External finish performance

	<u>Mission XP40®</u>	<u>Granite® HDX</u>	<u>GreenCoat® Hiarc Max</u>	<u>GreenCoat® Pural BT</u>
Corrosion Classification	RC5	RC5	RC5	RC5
UV Classification	RUV4	RUV4	RUV4	RUV4
Fire Classification	C,S2-D0	A1/A2	A1/A2	A1/A2
Environmental Rating	 	 	 	  

*Warranty subject to application and approval.

Steon[®]

Ultimate looks designed
to outperform

With our latest Steon[®]
emboss, created to
not only increase
the aesthetics of
the external finish
but also contributes
to its extensive warranty.



Our mission, to create the
worlds most innovative,
protective, most attractive and
waste reducing coated steel.

MISSION XP40[®]

From distribution and logistics centres housing millions of products to business parks and manufacturing facilities offering safe and productive environments.

Mission XP40[®] has been created to offer ultimate corrosion resistance and colour protection for the entire building envelope.

Mission XP40[®] has taken years of innovation, thousands of hours of work and a drive to reduce the waste created by replacing roof and wall systems that are not built to last.

Mission XP40®

A 40 year warranted coating specifically developed for severe external building applications, this product meets the enhanced requirements for aesthetic quality along with increased coating performance such as surface UV resistance, corrosion resistance and adhesion resistance.

Colour Range

Extensive Colour Range
Bespoke Colour Match Available**

Usage

External Profiles
Flashings & Fabrications
Flat Sheets

Coating Specification



Coating Type
Coating Warranty
Material Thickness
Coating Thickness
Backing Coat Thickness
Gloss Level
Appearance / Embossment
Zinc Coating
Steel Grade
Maximum Operating Temperature

Test standard

High Performance
40 years**
0.5mm / 0.7mm
EN 13523-1 200 Micron Plastisol
EN 13523-1 7 Microns Backing Coat
EN 13523-2 10-35GU
Steon® Embossment
ZM180 GIX
S280
60 Degrees

Coating Performance

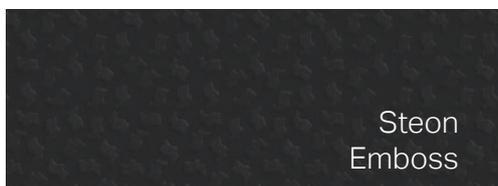
Corrosion Resistance Category
UV Resistance
European Fire Classification
Adhesion Cross Harch
Adhesion of coating (T-bend)
Salt Spray Test
Scratch Resistance
Abrasion Resistance
Humidity Resistance

Test standard

EN 10169
EN 10169
EN 13501-1
EN 13523-6
EN 13523-7
EN 13523-8
EN 13523-12
EN 13523-16
EN 13523-25

Coating Performance

RC5
RUV4
C, s2, d0
100%
0T (16°C) 1T (0°C)
1000 Hours
7kg
<7mg
1500 Hours



Granite® HDX

Arcelor Mittal HDX Granite® offers enhanced performance in aggressive environments. Granite® HDX is an ideal option where outstanding resistance to corrosion and colour stability are required.

Colour Range

Extensive Colour Range
Bespoke Colour Match Available**

Usage

External Profiles
Internal Profiles
Flashings & Fabrications
Flat Sheets

Temporary Film Protection
(Optional) Available

Coating Specification



Coating Supplier
Coating Type
Coating Warranty
Material Thickness
Coating Thickness
Backing Coat Thickness
Gloss Level
Appearance / Embossment
Zinc Coating
Steel Grade

Test standard

Arcelor Mittal	
Granite® HDX	
35 Years	
EN 13523-1	0.5mm/0.7mm
EN 13523-1	55 Microns
EN 13523-2	10 Microns
	30GU
	Light Grain
	Z275 g/m ²
	S280

Coating Performance

Corrosion Resistance Category
UV Resistance
European Fire Classification
Surface "Pencil" Hardness
Impact Resistance
Adhesion of coating (T-bend)
Resistance to cracking on bending (T-bend)
Salt Spray Test
Scratch Resistance
Abrasion Resistance
Humidity Resistance

Test standard

EN 10169
EN 10169
EN 13501-1
EN 13523-4
EN 13523-5
EN 13523-7
EN 13523-7
EN 13523-8
EN 13523-12
EN 13523-16
EN 13523-25

Coating Performance

RC5+ / RC5
RUV4
A1 / A2
F to H
18J
≤ 1 T
≤ 1.5 T
700 Hours
≥ 3kg
45N
1500 Hours

*Warranty is available up to 35 years. Terms and conditions apply.

**Subject to Quantities

8 reasons to use GreenCoat®

Unique combination of steel and external finish

GreenCoat® products have SSAB Nordic quality steel in the substrate, which is recognised worldwide as one of the best steels available on the market. All of our coatings have excellent technical properties. On top, most GreenCoat® products have a patented, Bio-based Technology (BT) coating using Swedish rapeseed oil instead of traditional fossil fuel oil.

Leading, patented technology using Swedish rapeseed oil

Most of the GreenCoat® products feature a Bio-based Technology (BT) coating with a substantial portion of the traditional fossil oil replaced by Swedish rapeseed oil – a patented SSAB technology – making them the only coatings on the market with a high bio-renewable content. All of our products are of course fully compliant with the REACH regulations. These benefits reduce environmental impact and allow for greener living.

Long lasting, superior surface for any weather

GreenCoat® products provide high colour retention and long lasting finishes that resist rust, white rust and UV radiation as well as scratches and the build-up of dirt, for reduced maintenance.

Wide colour offering

GreenCoat® is available in a wide range of vibrant colours and exclusive finishes, with custom colours available.

Colour repeatability

GreenCoat® products offer coatings with tight colour tolerances ensuring batch-to-batch colour consistency

Rigorous outdoor testing

Over 40 years of extensive outdoor testing at sites located worldwide ensure that GreenCoat® products withstand the harshest weather conditions like wind, rain, snow, saltwater, ice, UV radiation, high humidity and storms. Ensuring quality through real outdoor testing is a priority for SSAB and, therefore, we go far beyond what is required by the EU regulations.

The cleanest steel

GreenCoat® products are made from Nordic quality steels that are among the cleanest in the world with the tightest tolerances and best consistency.

Guaranteed performance

GreenCoat® products all come with extensive performance and finish guarantees.



Bio-based Technology

BT PATENT PROTECTED

GreenCoat® Hiarc Max

GreenCoat® Hiarc Max is a patented colour coated system developed by SSAB Swedish Steel. The coating offers superior performance for roofing, cladding and internal applications that are in aggressive environments.

Colour Range

Extensive Colour Range
Bespoke Colour Match Available**

Usage

External Profiles
Internal Profiles
Flashings & Fabrications
Flat Sheets

Temporary Film Protection
(Optional) Available

Coating Specification



Coating Supplier
Coating Type
Coating Warranty
Material Thickness
Coating Thickness
Backing Coat Thickness
Gloss Level
Appearance / Embossment
Zinc Coating
Steel Grade
Maximum Operating Temperature

Test standard

SSAB Swedish Steel
GreenCoat® Hiarc Max
40 Years
EN 13523-1
0.5mm/0.7mm
EN 13523-1
40 Microns
EN 13523-2
12 Microns
35-40GU
Light Grain
Z275
S280
110 Degrees

Coating Performance

Corrosion Resistance Category
UV Resistance
European Fire Classification
Adhesion of coating (T-bend)
Resistance to cracking on bending (T-bend)
Scratch Resistance

Test standard

EN 10169
EN 10169
EN 13501-1
EN 13523-7
EN 13523-7
EN 13523-12

Coating Performance

RC5
RUV5
A1
≤ 1 T
≤ 1 T
35N

GreenCoat® Pural BT

GreenCoat® Crown Pural BT is an eco-friendly colour coated system developed by SSAB Swedish Steel. The enhanced coating replaces a substantial portion of the traditional fossil content with a bio-based component.

Colour Range

Extensive Colour Range
Bespoke Colour Match Available**

Usage

External Profiles
Internal Profiles
Flashings & Fabrications
Flat Sheets

Temporary Film Protection (Optional) Available

Coating Specification



Coating Supplier
Coating Type
Coating Warranty
Material Thickness
Coating Thickness
Backing Coat Thickness
Gloss Level
Appearance / Embossment
Zinc Coating
Steel Grade
Maximum Operating Temperature

Test standard

SSAB Swedish Steel
GreenCoat® Crown Pural BT
40 Years
0.5mm/0.7mm
EN 13523-1
EN 13523-1
EN 13523-2
12 Microns
40 GU
Smooth Finish
Z275
S280
100 Degrees

Coating Performance

Corrosion Resistance Category
UV Resistance
European Fire Classification
Adhesion of coating (T-bend)
Resistance to cracking on bending (T-bend)
Scratch Resistance

Test standard

EN 10169
EN 10169
EN 13501-1
EN 13523-7
EN 13523-7
EN 13523-12

Coating Performance

RC5+
RUV4 / RUV5
A1
≤ 1 T
≤ 1 T
40N

Colour has the power to transform our landscape.

Established colours such as the ever reliable Goosewing Grey and other primary colours are the foundation of our industry. These mainstream industry colours on occasion give way to the bold, evolved colour range.

This evolved range of colours allows for bespoke designs to be considered and supplied with ease. Our strong partnership with our suppliers ensures that no project is out of our reach from a bespoke colour perspective or the finishes technical assurance on performance. It is possible to match to any RAL colour required including metallic finishes.





Building a better world.

We have helped in shaping the landscape in a positive way for over 40 years. That experience has enabled us to be involved in many of the largest construction projects globally.

Data & Distribution

Alpha 167 Omega, Warrington
Amazon, Aylesford
Amazon, Durham
Amazon, Gateshead
Amazon, Gloucester
Amazon, Leeds
Avon Headquarters, Northampton
Boohoo Warehouse, Keighley
College Trade Park, Leeds
Egham Royal Mail DO, Wandsworth
Exeter Logistics Park, Exeter
M&S Distribution Centre, Bradford
Microsoft Data Centre, Dublin
Northern Data Centre, Wakefield
Ocado Distribution Centre, Tamworth
Project Fox, Leicester
Prologis Park, Birmingham
Prologis Park, Bradford
Prologis Park, Dartford
Prologis Park, Glasgow
Prologis Park, Milton Keynes
Sports Direct Global HQ, Mansfield

Defence & Political

Beacon Barracks, Stafford
Catterick Barracks, North Yorkshire
ECHQ, Cheltenham
HMNB Clyde, Faslane
Normandy Barracks, Aldershot
RAF Menwith Hill, North Yorkshire
RAF Northolt, London
RAF Waddington, Lincoln

Education & The Sciences

Anderson High School, Shetland
Avanti School, Leicester
Elgin High School, Elgin
Energy Centre, University of Cambridge
Francis Crick Institute, London
i54 Strategic Employment, Wolverhampton
Institute of Hepatology, London
Kirkby High School, Liverpool
Littleport Academy, Ely
Liverpool John Moores University
Oban High School, Oban
Repton School, Derby
Royton & Crompton School, Oldham
Science Museum, Swindon
University of Birmingham
University of Edinburgh
University of Exeter
University of Huddersfield
University of Hull
University of Leeds
University of Lincoln
University of Salford
University of Sunderland
University of Ulster
University of West London
University of Wolverhampton
University of York

Entertainment & The Arts

Backstage Innovation Hub, Wakefield
BBC Television Centre, London
Coronation Street ITV Studios, Manchester
Glasgow Museum of Transport, Glasgow
Great Yorkshire Showground, Harrogate
Lyric Theatre, London
NEC, Birmingham
O2 Arena, London
Paris Philharmonic, London
Royal Shakespeare Theatre, Stratford-upon-Avon
Shepperton Studios, London
Space Studios, Manchester
Warner Bros Studios, Watford
Yorkshire Sculpture Park, Wakefield

Export

Al Thumama Stadium, Qatar
Dalmen City Project, Karachi
Data Centre, Finland
Deluxe Office, Kuwait
Dubai Airport, Dubai
Eversendai Tiara Twin Towers, Dubai
Hameau de la Mer, Jersey
Oman Museum, Oman
Project Floyd, Geneva
Ski Dubai, Emirates Mall, Dubai
The Egypt Shopping Mall, Egypt
Vice Chancellory, Jamaica

Healthcare

Bradford Royal Infirmary
Bristol Royal Infirmary
Christie Hospital, Manchester
Harrogate Hospital
Nightingale Hospital, Sunderland
Oldham Hospital
Southmead Hospital, Bristol
St Monica's Trust Retirement, Keynsham
Tameside Hospital
The Northumbria Specialist
Emergency Care Hospital Royal
University Hospital, Leeds

Infrastructure & Travel

ABP - Immingham Docks, Immingham
ABP - King George Docks, Hull
Battersea Power Station, London
Cannon Street Station, London
Dogger Bank Phase A, South Shields
Dogger Bank Phase B, Beverley
Dogger Bank Phase C, Redcar
Drax Power Station, North Yorkshire
Edinburgh Airport, Edinburgh
Joint Derbyshire Police & Fire Headquarters
Kantor Energy, Atherstone
MGT Biomass Power Plant, Middlesbrough
New Street Station, Birmingham
Ogmore Power, Ebbw Vale
Project Hercules, Birmingham
Queen Elizabeth Docks, Hull
Rookery South Energy Recovery, Bedford
Seaham Docks, Seaham
Sevenside Energy Recovery, Hallen
Southend Airport, Southend-on-Sea
Terminal 2 & 2B, Heathrow
Terminal 3, Heathrow
Terminal 5, Heathrow
URENCO, Chester
Yorkshire Water, Leeds

Manufacturing

Advanced Manufacturing Research Centre,
Manchester
Aerospace Boulevard, Farnborough
Airbus Industries, Cheshire
Aston Martin, Gaydon
BMW, Oxford
BMW, Swindon
Bodleian Book Storage, Swindon
Bunnahabhain Distillery, Isle of Islay
Caterpillar, North Yorkshire
Girvan Distillery, Ayrshire
Glenfiddich Distillery, Dufftown
Glenlivet Distillery, Ballindalloch
Ifor Williams, Deeside
Jaguar Land Rover, Birmingham
Jaguar Land Rover, Castle Bromwich
Jaguar Land Rover, Liverpool
Jaguar Land Rover, Warwick
Jaguar Land Rover, Wolverhampton
John Deere, Nottinghamshire
Leonardo Helicopters, Yeovil
Lotus Cars, Norwich
Networld Sports, Wrexham
Pirelli Tyres, Carlisle
Rolls Royce, Chichester
Rolls Royce, Rotherham
Scania, Newcastle
Siemens Trains, Goole
Symphony Group, Barnsley
Taylors of Harrogate, Harrogate
Toyota, Scunthorpe
Warburtons Bread, Widness

Office & Skyscraper

Aggreko Offices, Dumbarton
Baby Shard, London
DFE Offices, Darlington
First Street, Manchester
Forthriver Innovation Centre, Belfast
Kirkstall Forge, Leeds
Premier Inn, Bristol
Premier Inn, Headingley
Scalpel, London
Selfridge's, London
The Quay, Salford
The Shard, London
Watermark Place, London
West Medina Mills, Isle of Wight

Retail & Industrial Park

Audi, Cheltenham
Birch Coppice Business Park, Tamworth
Bristol Broadmead Shopping Centre, Bristol
Bullring Shopping Centre, Birmingham
Eagles Meadow Shopping Centre, Wrexham
Eldon Square Shopping Centre, Newcastle
Ferrari Showrooms, Swindon
Frontier Business Park, Blackburn
Hillthorn Business Park, Washington
Integra 61, Durham
Mander Shopping Centre, Wolverhampton
Porsche, Guildford
Porsche, West London
Prime Point 14, Stafford
Princesshay Shopping Centre, Exeter
Tesla, Norwich
The Rock, Bury
Trinity Shopping Centre, Leeds
Vantage 41, Aston Clinton

Sport & Leisure

Aston Martin, Silverstone
Carnegie Pavilion, Headingley
Carnegie Stadium, Leeds
Center Parcs, Woburn Forest
Cheltenham Racecourse
Chill Factore, Manchester
Etihad Stadium, Manchester
Manchester United FC, Carrington
MK Stadium, Milton Keynes
Molineux Stadium, Wolverhampton
National Football Centre, Burton Upon Trent
New Stand, Doncaster Racecourse
New Stand, Royal Ascot Racecourse
Oval Cricket Ground, London
Red Bull Technology, Milton Keynes
Riverside Stadium, Middlesbrough
Rotherham United FC
Saracens StoneX Stadium, London
St James Park, Exeter
Sunseeker Yachts, Poole Harbour
The Olympic Media Centre
The Olympic Stadium
The Olympic Velodrome
Wimbledon Centre Court, Wimbledon
Xscape, Castleford





Siemens Train Manufacturing Facility

Client: Siemens Mobility
Architect: AHR Architects Ltd
Contractor: GMI Construction
Location: Goole
Floor area: 250,000 sq ft

Phase 1 of Siemens Mobility state-of-the-art train manufacturing site incorporated both a brand new train manufacturing plant and also supply chain rail village in Goole, East Yorkshire.

New Piccadilly line tube and future main line trains are to be built on Humberside with future plans to provide rolling stock for HS2. The scale to accommodate a large facility and, crucially, ready access to the skilled workforce needed to build and operate the factory – these are two decisive reasons why Siemens chose Goole in East Yorkshire as the site for a new rail factory.







Net World Sports HQ

Client: Net World Sports
Architect: C4 Architects
Contractor: Portal Construction NW Ltd
Location: Wrexham
Floor area: 411,000 sq ft

The vision of Net World Sports to create a world class, modern workplace that looks great and can accommodate the rapid growth and ambitions of the business, has been achieved with the creation of the new HQ.

Coming from humble beginnings, the new 411,000 sq ft manufacturing, warehouse and office has been built just over a mile from the current site in Wrexham offering an onsite restaurant, bar, running track, tennis court, football pitch and gym.







Helicopter Manufacturer Hub

Client: Leonardo Helicopters
Architect: UMC Architects
Contractor: GMI Construction
Location: Yeovil
Floor area: 215,000 sq ft

The new logistics hub will help support Leonardo Helicopters' global fleet through the warehousing of components and tooling in this state-of-the-art facility. The project enabled the consolidation of eight existing warehouses into one all-encompassing logistics hub.

Sustainability is at the heart of this development with its high-end technologies. The brand new hub will be equipped with rainwater harvesting tanks for brown water services, LED lighting throughout the facility and a heat recovery system that will be used in the main warehouse to complement the modern office temperature control system.







Exeter Logistic Park

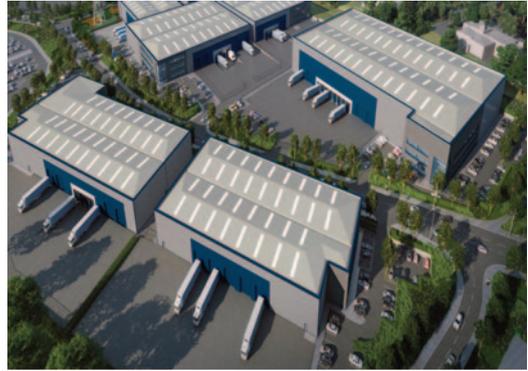
Client: Amazon / DHL / Forgeway
Architect: AJA Architects
Contractor: ISG Construction Ltd
Location: Exeter
Floor area: 173,500 sq ft

Exeter Logistics Park is located off the M5 close to Exeter Airport. Phase 1 consists of a distribution unit for Amazon of 90,000 sq ft, a 55,000 sq ft parcel distribution centre with integral office space on behalf of an end user and 28,500 sq ft unit developed for Forgeway.

Each unit has been designed to offer a BREEAM 'Very Good' rating, Net Carbon Zero and the inclusion of Photovoltaic Panels within the roof design. The inclusion of Water & Daylight saving control, Electric Vehicle Charging and an EPC A Rating have looked to future-proof the site.







Hillthorn Business Park

Client: Legal & General Investment,
Sunderland City Council
Architect: Hale Architecture Ltd
Contractor: GMI Construction
Location: Exeter
Floor area: 600,000 sq ft

Designed to support the needs of industrial, advanced manufacturing, storage and distribution businesses in the area and aid economic growth, the £60million development site will complement the International Advanced Manufacturing Park and Turbine Business Park.

The 600,000 sq ft development, incorporating sustainable building technology is the North East's largest speculative industrial scheme in over a decade. The first phase of the £60m Sunderland development has brought 1,600 jobs to the North East.







BMW MINI Manufacturing Plant

Client: BMW Mini
Architect: BCR Infinity Architects
Contractor: Glencar Construction
Location: Oxford
Floor area: 50,000 sq ft

BMW, the German car manufacturer combined with investment through the Government Automotive Transformation Fund has invested hundreds of millions of pounds into the BMW MINI Oxford plant, securing future production of the iconic MINI in Britain.

The plant plays a key role in BMW Group's global production network, producing for both BMW and MINI, including engines for some of the latest plug-in hybrid vehicles. More than one finished engine leaves the production line every minute, and more than a million components are machined at the plant each year.





Calderbank, River Street, Brighouse,
West Yorkshire, United Kingdom HD6 1LU

t: +44 (0) 1484 405940

e: info@firth-steels.co.uk

w: firth-steels.co.uk

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