

Interchar 212

Durable, high performance fire protection



A trusted passive fire protection coating technology based on over 40 years of experience

Interchar® 212 is the first mesh-free epoxy intumescent coating offering fire protection for up to three hours, designed to prevent structural collapse in cellulosic fires.

Interchar® 212 has a proven track record for excellent durability and corrosion resistance in both interior and exterior environments.

An extremely robust and cost effective solution; Interchar® 212 is highly resistant to detachment during construction as well as during its operating lifetime. As a result this minimizes the need for touch-ups and repairs on-site. These outstanding mechanical and physical properties are all supported by rigorous third party testing and approvals.

With Interchar® 212, four aesthetic finish standards are achievable and a full spectrum of colors can be attained via a wide range of compatible topcoats.



Interchar® 212 can also be used for on-site application:

- Suitable for completing the steelwork on-site and fire protecting the connections after building erection

Environmental considerations

Interchar® 212 passive fire protection coating features several environmentally sustainable properties:

- Contains zero volatile organic compounds (VOC), in accordance with the Green Seal Standard GS-11
- Tested in accordance to ASTM E84 and rated with Class A making it suitable for internal areas
- Contributes to the LEED Green Building Rating System (US), BREEAM Assessment (EU), and the Green Star Rating (Australia)

Structural fire design

Using fire protection product performance as a design medium in structural engineering is key. As a complementary service our professionally licensed in-house Structural Fire Design team partners with clients to assess optimized fire protection designs.

- Cost benefit analysis as part of an upfront value engineering process
- Optimized fire protection specific to steel sections and structural loading
- Rapid estimation of product thicknesses and overall volumes
- All product thickness recommendations in line with independent certified fire testing and assessment procedures

We advise our clients to engage with our industry-leading Structural Fire Design team at the start of the project in order to reach an economical solution.

Case studies to date include:

- 49-51 Conduit Street, London
- St. Vincent's Plaza, Glasgow
- Rotterdam Centraal Station

On-site and off-site application

Designed to be applied away from the construction site, Interchar® 212 removes the concern of installing fire proofing at the job site. This provides multiple benefits:

- Rigorous quality control provided by specialist off-site application facilities - ensuring that the fire proofing is applied as per specification
- Excellent mechanical properties including abrasion resistance with minimal damage in transit to site - no need for corrective re-application on-site
- Steel can be fire proofed and top coated away from site, leading to improved productivity, reduced on-site complexity, and lower on-site health and safety concerns



With anticorrosive properties and an ability to be applied to four finish standards, Interchar® 212 is an ideal choice where aesthetics are important.

Interchar 212 has an unrivalled range of approvals with global reach throughout the cellulosic market

Fire testing certification

STANDARD	LEAD COUNTRY/REGION	FIRE RATING
BS 476-21	UK, Middle East, India, New Zealand, Brazil, South East Asia	Up to 2 hours
KS F 2257	Korea	Up to 2 hours
AS 1530:4	Australia	Up to 2 hours
GOST	Russia	Up to 2 hours
GB 14907	China	Up to 3 hours
EN 13381-8*	Mainland Europe, Australia	Up to 3 hours
UL 263	America, Middle East, South East Asia	Up to 3 hours

* Full ETA and CE marking

Corrosion resistance certification

UL263	Exterior and interior listed
BS 8202: Part 2 (Singapore)	PSB exterior listed
NORSOK M-501 Rev 6, System 5A	Suitable for C5 environments (ISO 12944)

Mechanical properties

PROPERTY (TEST METHOD)	RESULT
Hardness (ASTM D2240)	>75 Shore-D
Adhesion (ISO 4624)	>8MPa (1,160 psi)
Compressive Strength (ASTM D695)	>30MPa (4,350 psi)

When subjected to explosive forces in an independent explosion test commissioned by AkzoNobel, Interchar® 212 has been proven resistant to up to 4 bar overpressure.



Some highlights from our track record

British Antarctic Survey's Halley VI Research Base | Antarctic



Year: 2013
Owner: British Antarctic Survey
Architect: Faber Maunsell and Hugh Broughton
Engineer: AECOM

Warsaw National Stadium | Poland



Year: 2011
Owner: State Treasury, Poland
Architect: JSK Architects Ltd.
Contractor: Alpine Bau

Iron Bank Building | New Zealand



New Zealand Architecture Awards for sustainable architecture and urban design in October 2009.
 Five-star green building rating by the New Zealand Green Building Council

Year: 2008
Owner: Samson Corporation
Architect: RTA Studio
Contractor: Macrennie Commercial Construction
Fabricator: Jensen Steel Fabricators Ltd

Aegir Apartments | Australia



Year: 2013
Owner: Nordic
Architect: a+a macliver
Fabricator: C&T Modular Co Ltd.
Builder: Nordic Home

Country	Owner	Project type	Year
Australia	Barrangaroo Towers	High rise	2014
Australia	Gladstone Hospital	Hospital expansion	2006
Australia	Abbot Point Coal Terminal	Port machinery	2008
Australia	Mackay Trade Center	Commercial	2008
Australia	123 Albert Street	Elevator steelwork	2009
Australia	Waterfront Darwin City	Commercial	2009
Australia	Rockhampton Regional Hospital	Medical facilities	2009
Australia	Tama Beach House	Commercial	2008
Australia	Onslow St CremoRNe	Commercial	2008
Australia	Pluto Onshore Control Room	Oil and Gas	2009
Australia	Magill Precast Enclosure	Power	2007
Australia	111-113 George St Car Park	Commercial	2006
Australia	St John's School	Fire proofing	2007
Australia	Inter Ocean Services	Deck support columns	2005
Canada	Vancouver Convention Center	Convention center	2009
Canada	Hydro Quebec	Power plants	2009 - 2014
Canada	St. Laurent Sports Complex	Recreation	2014
Canada	Coliseum du Nordique	Stadia	2013 - 2014
Hong Kong	Hong Kong Airport Midfield Concourse	Airport	2014
Italy	IMI San Paolo Tower	High rise	2014
Macau	Mandarin Hotel	Extension	2005
The Netherlands	Schiphol KLM ICA Lounge	Airport	2007
The Netherlands	Schiphol Pier D Jetty Structure	Airport	2013
The Netherlands	Ahoy Rotterdam	Convention center/Arena	2010
The Netherlands	Stadskantoor Leyweg City Office	Commercial	2010
The Netherlands	NUON Groningen	Power	2011
New Zealand	AMI Stadium	Stadia	2012
New Zealand	Christchurch Airport Authority	Airport	2012
New Zealand	Toll Stadium, Okara Park	Stadia	2011
New Zealand	The Ironbank Building	Commercial	2008
New Zealand	155 The Strand – Street Bridge	Commercial	2006
Poland	National Stadium, Warsaw	Stadia	2009 - 2011
Singapore	Asia Square Tower	High rise	2013
Singapore	Genentech	Pharmaceutical facility	2007
Singapore	National Stadium Complex	Stadia	2013 - 2014
United Arab Emirates	Seba Tower	Commercial	2011
United Arab Emirates	The Souq, Abu Dhabi Central Market	Commercial	2011
United Kingdom	Heathrow Terminal 5	Airport	2008
United Kingdom	127-135 Sloane Street	Commercial	2013 - 2014
United Kingdom	Essex Waste Facility	Waste plant	2013 - 2014
United Kingdom	Glaxo-Smith Kline Pharmaceuticals	Pharmaceutical facility	2007
United Kingdom	UK Ministry of Defense	Commercial	2007
United Kingdom	Audi Showroom	Commercial	2006
United Kingdom	Colchester Garrison	Commercial	2007
United States	NY Times Tower	Exoskeleton high rise	2004
United States	2nd Avenue Subway NYC Transit Authority	Subway	2012 - 2014
United States	WTC Transportation Hub NYC Transit Authority	Subway station	2011 - 2014
United States	Phoenix Sky Harbor Airport Expansion	Airport	2011
United States	National Geospatial Science Center	Research center	2009
United States	Clarendon St. Entrance Ramp MA Turnpike Authority	Highway	2008
United States	Navy Pier	Commercial	2013
United States	837 Washington Street	Exoskeleton high rise	2013
United States	Washington University Station St. Louis Transit Authority	Subway station	2008
United States	Corporate HQ and MFG Plant Water Saver Corporation	Commercial office	2012
United States	Missouri State University	Recreation center	2010
United States	Columbia University	Exoskeleton high rise	2011 - 2013

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