PRODUCT SPECIFICATION SHEET
BELZONA 5841
FN10103

GENERAL INFORMATION

Product Description:
A two component, solvent free coating for protection of steelwork subject to Corrosion Under Insulation. The system is specifically designed for application onto hot surfaces in the range 30 - 80°C (86 - 176°F).

Application Areas:
When mixed and applied as detailed in the Belzona Instructions for Use (IFU), the system provides corrosion protection to steelwork covered with thermal insulation.

APPLICATION INFORMATION

Working Life
Will vary according to temperature. At 20°C (68°F) the usable life of mixed material is 1 hour.

Coverage Rate
The coverage rate and film thickness are dependent on the substrate temperature. Refer to the Belzona IFU for theoretical and practical coverage rates.

Cure Time
The cure time for **Belzona 5841** is dependent on the substrate temperature. Allow to cure for the times shown in the Belzona IFU before subjecting it to the conditions indicated.

Base Component	
Appearance	Viscous liquid
Colour	Grey
Density	2.23 - 2.27 g/cm³
Solidifier Component	
Appearance	Clear mobile liquid
Colour	Amber
Density	1.04 - 1.08 g/cm³
Mixed Properties	
Mixing Ratio by Weight (Base : Solidifier)	8.5 : 1
Mixing Ratio by Volume (Base : Solidifier)	4 : 1
Mixed Density	1.99 - 2.03 g/cm³

The above application information serves as introductory guide only. For full application details including the recommended application procedure/technique, refer to the Belzona IFU which is enclosed with each packaged product.

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ADHESION

Tensile Shear
When tested in accordance with ASTM D1002 typical values will be:

Grit blasted steel	3,500 psi (24.1 MPa)
Ground steel	3,500 psi (24.1 MPa)

Pull-Off Strength
When tested in accordance with ASTM D4541 typical values will be:

Grit blasted steel	1,800 psi (12.4 MPa)
Ground steel	1,800 psi (12.4 MPa)
Rusty steel prepared to ISO 8501-1 St 3	1,400 psi (9.65 MPa)

CHEMICAL RESISTANCE

Once fully cured, the material will demonstrate excellent resistance to most commonly found inorganic acids and alkalis at concentrations up to 20%. The material is also resistant to hydrocarbons, mineral oils, lubricating oils and many other commonly found chemicals.

CORROSION PROTECTION

Cathodic Disbondment
When tested in accordance with ASTM G42 at 70°C /158°F, the average disbondment radius will typically be: 11.3 mm/0.44 in.

Salt Spray
Will show no visible signs of corrosion after 1,000 hours exposure in the ASTM B117 salt spray cabinet.

HARDNESS

Shore D
The Shore D hardness of the material when tested to ASTM D2240 is typically:

80	after 24 hours cure at 20°C (68°F)
82	after 24 hours cure at 80°C (176°F)

Barcol
The Barcol hardness of the material when tested to ASTM 2583 is typically:

39 (Model No. 934-1)	after 7 days cure at 80°C (176°F)
90 (Model No. 935)	after 7 days cure at 80°C (176°F)

HEAT RESISTANCE

Heat Distortion Temperature
When tested to ASTM D648 (264 psi fibre stress), typical values obtained will be:

95°C (203°F)	after 7 days cure at 80°C (176°F)
51°C (123°F)	after 7 days cure at 20°C (68°F)

Dry Heat Resistance
The indicated degradation temperature in air based on Differential Scanning Calorimetry (DSC) operated in accordance with ISO11357 is typically 220°C (428°F).

IMPACT STRENGTH

The falling weight impact resistance of the material when tested in accordance with ASTM D2794 is typically:

23 in.lb.(2.6Nm)	after cure at 20°C (68°F)
39 in.lb.(4.4Nm)	after cure at 80°C (176°F)

IMMERSION RESISTANCE

When tested in accordance with ISO 2812-2 (NACE TM0174 Method B) the coating exhibited no blistering, cracking or rusting after 6 months of continuous immersion in artificial seawater at 40°C (104°F).

THERMAL PROPERTIES

Thermal cycling
When tested in accordance with NACE TM0304 the coating exhibited no cracking after 252 cycles between +60°C/140°F and -30°C/-22°F.

THICK FILM CRACKING RESISTANCE

When tested in accordance with NACE TM0104 no cracking was experienced when applied at three times recommended thickness and exposed for 12 weeks in artificial seawater at 40°C (104°F).

SHELF LIFE

Separate base and solidifier components shall have a shelf life of 5 years from date of manufacture when stored in their original unopened containers between 5°C (41°F) and 30°C (86°F).

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WARRANTY

This product will meet the performance claims stated herein when material is stored and used as instructed in the Belzona Information For Use leaflet. Belzona ensures that all its products are carefully manufactured to ensure the highest quality possible and are tested strictly in accordance with universally recognized standards (ASTM, ANSI, BS, DIN, ISO, etc.). Since Belzona has no control over the use of the product described herein, no warranty for any application can be given.

AVAILABILITY AND COST

Belzona 5841 is available from a network of Belzona Distributors throughout the world for prompt delivery to the application site. For information, consult the Belzona Distributor in your area.

HEALTH AND SAFETY

Prior to using this material, please consult the relevant Safety Data Sheets.

MANUFACTURER / SUPPLIER

Belzona Limited,
Claro Road, Harrogate,
HG1 4DS, UK

Belzona Inc.
14300 NW 60th Ave,
Miami Lakes, FL, 33014, USA

TECHNICAL SERVICE

Complete technical assistance is available and includes fully trained Technical Consultants, technical service personnel and fully staffed research, development and quality control laboratories.

Belzona products are manufactured under an ISO 9001 Registered Quality Management System