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PRODUCT SPECIFICATION SHEET
BELZONA® 5831

1. PRODUCT NAME
Belzona® 5831
A moisture tolerant barrier coating for protection of metallic and non-metallic surfaces against attack from aqueous solutions.

2. MANUFACTURER
Belzona Polymerics Ltd.,
Claro Road, Harrogate,
HG1 4AY, England.

Belzona Inc.,
2000 N.W. 88 Court,
Miami, Florida 33172, U.S.A.

3. PRODUCT DESCRIPTION
A two component system applied by brush for protection of metallic and non-metallic surfaces operating under immersed conditions in contact with aqueous solutions.

Applications
Specifically designed for application to wet or underwater structures.

4. TECHNICAL DATA
Base Component

Appearance	Viscous liquid
Color	Brown
Density	2.21 - 2.27 g/cm^3

Solidifier Component

Appearance	Thixotropic liquid
Color	Black
Density	1.25 - 1.31 g/cm^3

Mixed Properties at 68°F (20°C)

Mixing Ratio by Weight (Base : Solidifier)	1.75 : 1
Mixing Ratio by Volume (Base : Solidifier)	1 : 1
Mixed Density	1.76 g/cm^3

• *Shelf Life:*
Separate base and solidifier components have a shelf life of at least 3 years when stored between 32°F (0°C) and 86°F (30°C).

• *Working Life:*
Will vary according to temperature. At 68°F (20°C) the usable life of mixed material is 45 minutes.

• *Coverage Rate:*
Applied at a thickness of 10mil (250 microns), a theoretical coverage rate of 35.5 sq.ft./liter (3.3 sq.m./liter) should be achieved.

• *Cure Time:*
The **Belzona® 5831** system will cure under cold, wet conditions down to 57°F (5°C).

5. PHYSICAL/MECHANICAL PROPERTIES
Determined after 7 days cure at 77°F (25°C).

• *Adhesion:*
Tensile Shear
When tested in accordance with ASTM D1002, using mild steel substrates:

	Ground	Blasted
Clean and dry	1460 psi (103 kgs/cm^2)	1660 psi (117 kgs/cm^2)
Underwater	1300 psi (91 kgs/cm^2)	1600 psi (112 kgs/cm^2)
Oil contaminated	1360 psi (96 kgs/cm^2)	1390 psi (98 kgs/cm^2)

• *Atlas Cell Testing:*
When tested in accordance with NACE standard TM01-74 in contact with de-ionized water at 104°F (40°C) no blistering is observed in the immersed portion or vapour phase after 1,000 hours immersion.

• *Compressive Strength:*
When tested in accordance with ASTM D695, typical values obtained are:
2170 psi (153 kgs/cm^2) ambient cure

• *Flexural Strength:*
When tested to ASTM D790 typical values obtained are:
1440 psi (101 kgs/cm^2) ambient cure

• *Hardness:*
The Shore D hardness of the material when tested to ASTM D2240 is typically
70 ambient cure

• *Heat Resistance:*
For many typical applications the material is suitable for continuous immersion in aqueous solutions up to 104°F (40°C).

• *Immersion Resistance:*
When applied to either grit blasted steel or ground steel the coating shows no blistering or undercutting after 2000 hours immersion in tap water or sea water.

• *Impact Strength:*
The Izod impact strength of the material when tested in accordance with ASTM D256 is typically

un-notched	48 J/m
notched	38 J/m

• *Salt Spray Resistance:*
When tested in accordance with ASTM B117, the coating shows no blistering or corrosion after 2000 hours exposure, whether applied to:
Clean grit blasted steel
Clean ground steel
Rusty steel prepared by wire brushing

CURE TIMES

TEMPERATURE	50°F (10°C)	68°F (20°C)	86°F (30°C)
Light loading	48 hrs	24 hrs	12 hrs
Full mechanical loading	14 days	5 days	2 days

6. SURFACE PREPARATION AND APPLICATION PROCEDURES

For proper technique, refer to the Belzona® Instructions For Use leaflet which is enclosed with each packaged product.

7. AVAILABILITY AND COST

Belzona® 5831 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.

8. WARRANTY

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

9. TECHNICAL SERVICES

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

10. HEALTH AND SAFETY

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

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