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PRODUCT SPECIFICATION SHEET BELZONA® 4811

1. PRODUCT NAME

Belzona® 4811

Screed for protecting surfaces against abrasive attack.

2. MANUFACTURER

Belzona Inc.,

2000 N.W. 88th Court
Miami, Florida 33172

Belzona Polymerics Ltd.,

Claro Road, Harrogate,
HG1 4AY, England

3. PRODUCT DESCRIPTION

A two-component system consisting of a base and solidifier. The product is based on high molecular weight polymers and oligomers incorporating abrasion resistant ceramic aggregates. This material is normally applied at 6mm (1/4 inch) thickness onto horizontal surfaces, 3mm (1/8 inch) on vertical surfaces. The system protects the substrate from abrasive attack and is ideally suited for application to:

- Chutes
- Hoppers
- Deflector screens
- Wear plates
- Centrifuges
- Mixing bowls
- Bunkers
- Pipe bends

4. TECHNICAL DATA

Base Component

Appearance	Granular paste
Color	Black
Density	3.0 - 3.4 g/cm ³

Solidifier Component

Appearance	Clear liquid
Color	Amber
Density	0.98 - 1.02 g/cm ³

Mixed Properties

Mixing Ratio by Weight (Base : Solidifier)	100 : 3.1
Mixing Ratio by Volume (Base : Solidifier)	10 : 1
Mixed Density	2.58 g/cm ³

• Shelf Life:

Separate base and solidifier components shall have a shelf life of at least 5 years when stored between 32°F (0°C) and 86°F (30°C).

• Working Life:

Will vary according to temperature. At 77°F (25°C) use all mixed material within 30 minutes.

• Coverage Rate:

Each 20kg unit applied at 1/4 in. (6mm) thickness will cover approximately 14 sq.ft. (1.3 sq.m.).

• Volume Capacity:

The volume capacity of mixed product is 25.2 cu.ins. (388 cc) per kg.

• Cure Time:

Allow to solidify for the times shown in the chart below before subjecting it to the conditions indicated.

These times are for a thickness of approximately 0.25 ins. (0.6 cm); they will be reduced for thicker sections and extended for thinner sections.

5. PHYSICAL / MECHANICAL PROPERTIES

Determined after 7 days cure at 73°F (23°C).

• Abrasion Resistance:

Taber

The sliding abrasion resistance of the material when tested using the Taber Abraser, with H10 grinding wheels under a 1 kg load shall be typically: 54 mm³ loss/1000 cycles tested wet.

• Adhesion:

Tensile Shear

The tensile shear adhesion of the material when tested to ASTM D1002 shall be typically 3,000 psi (211 kgs/cm²).

• Chemical Resistance:

Whilst specifically designed for dry abrasion resistance, good chemical resistance is exhibited to most commonly found chemical substances including inorganic acids and bases.

• Compressive Strength:

The compressive strength of the material when tested to ASTM D695 shall be typically 6,400 psi (450 kgs/cm²).

• Flexural Strength:

The flexural strength of the material when tested to ASTM D790 shall be typically 4,100 psi (288 kgs/cm²).

• Heat Distortion Temperature:

Tested to ASTM D648 (264 psi fiber stress) typical values obtained will be 43°C.

CURE TIMES

TEMPERATURE	41°F (5°C)	50°F (10°C)	59°F (15°C)	68°F (20°C)	77°F (25°C)	86°F (30°C)
Movement or use involving no loading	16 hrs	12 hrs	6 hrs	5 hrs	4 hrs	2 hrs
Full mechanical or thermal loading	2 days	1½ days	1 day	20 hrs	16 hrs	12 hrs
Contact with chemicals	14 days	12 days	10 days	7 days	5 days	3 days

• **Heat Resistance:**

For many typical applications the product is suitable for use between -40°F and 140°F (-40 to 60°C).

• **Impact Resistance:**

The Izod impact strength measured according to ASTM D256 shall be typically
0.4 ft.lbs./in. (22 J/m) un-notched or
0.27 ft.lbs./in. (15 J/m) reverse notched.

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® 4811 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 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 recognized 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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