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PRODUCT SPECIFICATION SHEET **BELZONA® 4251**

1. PRODUCT NAME

**Belzona® 4251
(E Magma Resins)**

A rapid curing safety grip system which creates a durable, non-slip walking surface on steel, concrete, quarry tile, or wood.

2. MANUFACTURER

Belzona Inc.,
2000 NW 88th Court,
Miami, Florida 33172.

Belzona Polymeric Ltd.,
Claro Road, Harrogate, ,
HG1 4AY, England.

3. PRODUCT DESCRIPTION

A three-component system consisting of a liquid base, liquid solidifier, and aluminum oxide aggregate. The material is provided in one color only - Gray. The aggregate is dark gray or white. The system provides a durable non-slip surface with excellent adhesion, wear and chemical resistance. Cure is rapid to minimise downtime.

Applications

Building entrances.
Concrete floors, ramps or steps.
Terrazzo, kitchen and laboratory floors.
Chemical storage tank tops.
Metal ladder rungs.
Diamond plate walkways.
Machinery and chemical work areas.
Loading docks and bays.
Warehouse forklift traffic.
Wooden decks.
Fiberglass boat decks.

4. TECHNICAL DATA

Base Component

Appearance Dark green liquid
Specific Gravity 1.09

Solidifier Component

Appearance White liquid
Specific Gravity 1.35

Aggregate Component

Belzona® 9211 (Supergrip)

Al₂O₃ content typically 95.2%
Density 3.95g/cm³
Sieve analysis:
12 mesh 100% passing
16 mesh 0-20% retained
18 mesh min 45% retained
18-20 mesh min 70% retained
25 mesh max 3% passing

Belzona® 9221 (Surefoot White)

Al₂O₃ content typically 95.2%
Density 3.94g/cm³
Sieve analysis:
18 mesh 100% passing
25 mesh 0-25% retained
30 mesh min 45% retained
30-35 mesh min 65% retained
40 mesh max 3% passing

Mixing Ratio

Base : Solidifier
by weight 1 : 1.25
by Volume 1 : 1
Aggregate As desired

• **Shelf Life:**

Separate Base and Solidifier components will have a 12 month shelf life when stored between 32°F (0°C) and 86°F (30°C).

• **Coverage Rates:**

Depends on the choice of aggregate and nature of substrate. As a practical guide, an 450 gram mix will cover 7.1 - 10.3 sq. ft. (0.67 - 0.98m²).

• **Volume Capacity:**

The volume capacity of mixed material is 22.5 cu.in. (368 ccs) per 450 gm unit.

• **Cure Time:**

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

Note that cure times refer to the standard system blinded with either **Belzona® 9211** or **Belzona® 9221** Aggregate.

5. PHYSICAL/MECHANICAL PROPERTIES

Determined after 7 days cure at 68°F (20°C).

• **Abrasion Resistance:**

Taber

The Taber abrasion resistance with CS17 wheels and 1 kg dry load is typically 94 mm³ loss of coating per 1,000 cycles.

• **Adhesion:**

Elcometer

The typical Elcometer pull-off adhesion tested on different substrates is as follows:

Wood	425psi (30.0 kgs/cm ²)*
Blasted quarry tile	900psi (63.3 kgs/cm ²)*
Brick	650psi (45.7 kgs/cm ²)*
Ground mild steel	850psi (60.0 kgs/cm ²)
Blasted mild steel	875psi (61.5 kgs/cm ²)

* Substrate failure

• **Chemical Resistance:**

Once fully cured, the material will demonstrate good resistance to a broad range of chemicals.

• **Compressive Strength:**

When tested in accordance with ASTM D695 is typically 6,300 psi (445 kgs/cm²).

• **Flexural Strength:**

When tested in accordance with ASTM D790 is typically 3,350 psi (236 kgs/cm²).

• **Impact Strength:**

The material, when tested in accordance with ASTM D256 using notched test pieces is typically 0.34 ft.lbs./in. (18J/m).

CURE TIMES

Temperature	32°F (0°C)	41°F (5°C)	50°F (10°C)	59°F (15°C)	68°F (20°C)	77°F (25°C)
Light pedestrian traffic	80 min	70 min	60 min	50 min	40 min	30 min
Vehicular traffic	3½ hours	3 hours	2½ hours	2 hours	1½ hours	1 hour

6. SURFACE PREPARATION AND APPLICATION PROCEDURES

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

7. AVAILABILITY AND COST

Belzona® 4251 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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