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PRODUCT SPECIFICATION SHEET **BELZONA® 4211**

1. PRODUCT NAME

**Belzona® 4211
(Magma-Stop)**

For stopping seeping or running water through brick or cementitious structures.

2. MANUFACTURER

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

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

3. PRODUCT DESCRIPTION

A special blend of mineral aggregates, plasticising and accelerating agents. The dry powder is mixed with water and solidifies in 45-60 seconds to stop hydrostatic water flow. Live leaks are sealed. The material contains no chlorides, gypsums, plasters, iron particles or gas forming agents and will not promote the corrosion of steel it may come in contact with. Despite its rapid cure the waterproofing mortar has very low heat output to prevent thermal cracking. This controlled set is engineered to provide maximum dimensional stability.

Applications.

Concrete Tanks
Sewer Pipes
Sewer Line Joints
Culverts
Wells
Lift Stations
Floors
Grain Pits
Cellars
Basements
Water Pipes
Subways
tunnels
Sumps
Manholes
Retaining Walls

4. TECHNICAL DATA

Base Component:

Appearance	Powder
Colour	Grey
Odour	Little or none
Specific Gravity	2.88

Mixing Ratio:

3 parts **Belzona® 4211** to 1 part water by volume.

• **Shelf Life:**

If stored in unopened bag the material will have a guaranteed minimum shelf life of 2 years. Once opened the material should be used immediately.

• **Working Life:**

Warmer water will accelerate the cure, colder water will retard the cure. At a water temperature of 50°F-59°F (10°C-15°C) and a 77°F (25°C) powder temperature the material will solidify completely within 30-60 seconds.

• **Volume Capacity:**

The volume capacity of each 1kg mixed unit is 35 in³ (574 cm³).

• **Cure Time:**

Belzona® 4211 will achieve approximately 50% of its ultimate compressive strength after 24 hours, 80% of its final properties after 5 days, but will continue to react to achieve full cure over a 28 day period.

Overcoating with **Belzona® 4221** (Magma-Seal) can, however, take place immediately after application of the **Belzona® 4211**.

5. PHYSICAL / MECHANICAL PROPERTIES

• **Chemical Resistance:**

The product has limited chemical resistance and is not recommended under situations of chemical attack.

• **Compressive Strength:**

When tested in accordance with ASTM C109 the following are typical results obtained.

Cure Time	Strength
10 minute	500 psi (35 kgs/cm ²)
1 hour	1200 psi (84 kgs/cm ²)
1 day	2400 psi (169 kgs/cm ²)
28 days	6000 psi (422 kgs/cm ²)

• **Freeze/Thaw Resistance:**

When tested in accordance with NYS DOT 216 typically passes 50 cycles.

• **Heat Resistance:**

The material can be used on flowing water up to 140°F (60°C).

• **Shrinkage/Expansion:**

When tested in accordance with ASTM C157 typical expansion is +0.05%

• **Sulphate Resistance:**

When tested in accordance with ASTM C88 typically passes 15 cycles.

6. SURFACE PREPARATION AND APPLICATION PROCEDURES

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

7. AVAILABILITY AND COST

Belzona® 4211 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.

11. APPROVALS/ ACCEPTANCES

U.S.D.A.
CITY OF LAFAYETTE

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