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PRODUCT SPECIFICATION SHEET **BELZONA® 4521**

1. PRODUCT NAME

Belzona® 4521

(Magma-Flex Fluid)

Elastomeric sealant for building and expansion joints.

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, solvent free fluid material. Once combined, the base and solidifier form a flexible, elastomeric compound with low modulus. This material is designed for sealing building and expansion joints with $\pm 25\%$ movement.

4. TECHNICAL DATA

Base Component

Appearance Viscous white liquid
Density 1.09 g/cm³

Solidifier Component

Appearance Black thixotropic paste
Density 1.52 g/cm³

Mixing Ratio

Mixing Ratio by Weight
(Base : Solidifier) 1 : 1
Mixing Ratio by Volume
(Base : Solidifier) 1.4 : 1

• **Shelf Life:**

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

• **Working Life:**

The usable life will vary according to temperature. At 77°F (25°C), use all mixed material within 18 minutes.

• **Volume Capacity:**

82.4 cu.in. (1350 ccs) per 1.7kg unit.

• **Cure Time:**

Will be reduced for thicker sections and extended for thinner applications. At a thickness of approximately 0.10 in. (0.25cm), allow to solidify for the times shown in the chart below before subjecting it to the conditions indicated.

5. PHYSICAL / MECHANICAL PROPERTIES

Determined after 14 days cure at 77°F (25°C).

• **Adhesion:**

The 90° peel adhesion using **Belzona® 4911** conditioner and tested in accordance with ASTM D421 is typically:

Blasted steel	54 pli (955 kgs/m)*
Aluminum	58 pli (1026 kgs/m)*
Concrete	>50 pli (884 kgs/m)*
Belzona® 4111	50 pli (884 kgs/m)*

* Cohesive failure in Belzona® 4521

• **Chemical Resistance:**

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

• **Elongation:**

Tested in accordance with ASTM D412 (Die C) is typically 450%.

• **Expansion Joint Applications:**

Material is tested against a modified ASTM C-719 "Adhesion and Cohesion of Elastomeric Joint Sealant" and qualified as a Class 25, Type M, Grade N sealant ($\pm 25\%$ movement).

• **Shore A Hardness:**

Tested in accordance with ASTM D2240 is typically 55.

• **Tear Strength:**

Tested in accordance with ASTM D624 is typically 115 pli (2.05 kgs/mm).

• **Tensile Strength:**

Tested in accordance with ASTM D412 (Die C) is typically in range 250-350 psi (17.6-24.6 kgs/cm²).

CURE TIMES

TEMPERATURE	50°F (10°C)	59°F (15°C)	68°F (20°C)	77°F (25°C)
Light loading	12 hrs	6 hrs	4 hrs	3 hrs
Full mechanical or thermal loading	72 hrs	48 hrs	36 hrs	24 hrs

6. SURFACE PREPARATION AND APPLICATION PROCEDURES

To ensure adhesion, the substrate must be treated with **Belzona® 4911** (TX Conditioner) prior to application of **Belzona® 4521**.

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

7. AVAILABILITY AND COST

Belzona® 4521 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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