BELZONA® World leaders in the conservation of man-made resources and the environment

PRODUCT SPECIFICATION SHEET
BELZONA® 4341

1. PRODUCT NAME
Belzona® 4341
A barrier coating for protecting surfaces against the effects of chemical attack.

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

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

3. PRODUCT DESCRIPTION
A high performance, two-component barrier coating optimised for resistance to hot inorganic acids, such as sulphuric, and hydrochloric acid resistance. The system, which isolates concrete and metal substrates from deteriorating chemical environments, is ideally suited for application to:

Acid retaining walls.
Chemical drains and channels.
Chemical transfer and holding areas.
Pump bases.
Pump casings.
Tank pads.
Walkways (with non-slip aggregate incorporated).
Tanks.

4. TECHNICAL DATA
Base Component

Appearance	Thixotropic liquid
Color	Red/Black
Gel Strength	70 g/cm^3
Density	1.58 g/cm^3

Solidifier Component

Appearance	Clear Liquid
Color	Amber
Density	1.12 g/cm^3

Mixed Tests

Mixing Ratio by Weight (Base : Solidifier)	8.82 : 1
Mixing ratio by Volume (Base : Solidifier)	6.26 : 1
Density	1.52 g/cm^3
Sag Resistance	> 50 thou
Time to Peak Exotherm at 68°F (20°C)	28 minutes
Peak Exotherm Temperature	266°F (130°C)
Useable Life at 68°F (20°C)	15 minutes

• *Shelf Life:*
All components when stored between 32°F (0°C) and 86°F (30°C) will have a shelf life of 3 years.

• *Coverage Rates:*
As a guide, a 1.5 kg mix should be sufficient to cover an area of 24 sq.ft. (2.25 m^2) at the recommended film thickness of 16 mils (400 microns).

Application to rough or irregular surfaces may reduce these coverage rates by 20 - 25%.

• *Volume Capacity:*
The volume capacity of mixed product is 994 cm^3 per 1.5 kg unit.

• *Cure Time:*
Allow to solidify for the times shown in the chart below before subjecting it to the conditions indicated.

Note: Below 59°F (15°C), solidification times will be significantly extended and the resultant chemical resistance capability of the **Belzona® 4341** will be reduced.

For optimum results, **Belzona® 4341** should be forced cured at 180°F (80°C) for 4 hours. This will ensure the very best chemical resistance.

5. PHYSICAL/MECHANICAL PROPERTIES

• *Adhesion:*
Tensile Shear
The tensile shear adhesion shall be tested to ASTM D1002. Surface preparation shall be grit blasting with a profile of 3-4 mil (75-100 microns).
Typical values obtained will be:
Steel 68°F (20°C) :1500 psi (105 kg/cm^2
Steel 212°F (100°C) :1600 psi 112 kg/cm^2

• *Chemical Resistance:*
Belzona® 4341 has been formulated for optimum resistance to hot inorganic acids up to 194°F (90°C).

A minimum concentration of acid is required to activate self protecting enamel formation. Alternatively post-curing may be required before exposure to chemicals.

It is recommended that all proposed applications are checked with TKL at Harrogate or Miami for suitability before proceeding.

• *Compressive Strength:*
The compressive yield strength of the material when tested to ASTM D695 is typically 7300 psi (510 kgs/cm^2).

• *Flexural Strength:*
The flexural strength of the material when tested to ASTM D790 is typically 5000 psi (350 kgs/cm^2).

CURE TIMES

Temperature	59°F (15°C)	68°F (20°C)	86°F (30°C)
Light pedestrian traffic	12 hrs	8 hrs	4 hrs
Full chemical resistance	7 days	5 days	3 days

• *Heat Distortion Temperature:*

The heat distortion temperature (HDT) of the material has been tested in accordance with ASTM D648, under 264 psi fiber stress. Typical results obtained using different cure schedules are as follows:

Cure Schedule	HDT Values
68°F (20°C) cure	142°F (61°C)
122°F (50°C) cure	176°F (80°C)
212°F (100°C) cure	185°F (85°C)
302°F (150°C) cure	205°F (96°C)

• *Heat Resistance:*

For many typical applications, the product is thermally stable to 392°F (200°C) dry and 194°F (90°C) wet, and down to -40°F (-40°C).

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® 4341 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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