

Belzona 4154

FN10188 (BULKFILL RESIN)



INSTRUCTIONS FOR USE

Belzona 4154 (Bulkfill Resin) is designed to be mixed with different aggregates, which can be other than the one supplied by Belzona. Ideal for filling holes and leveling large uneven areas to provide cost-effective solutions. Please refer to Note 4 "Aggregate Recommendation" to select an appropriate aggregate.

1. TO ENSURE AN EFFECTIVE MOLECULAR WELD

Any surface to which **Belzona 4154** is to be applied must be clean, firm and dry. Wash old concrete down with detergent to remove oil, grease and dust. Use clean water to wash away the detergent. Remove all paint, tar and any other coatings.

Allow new concrete to cure for a minimum of 28 days or until the moisture content is below 6% using a Protimeter.

In all instances vacuum up any loose dust produced by surface preparation techniques.

NOTE: Damp surfaces should be conditioned with **Belzona 4911** (Magma TX Conditioner) prior to application of **Belzona 4154**. Substrates should be conditioned with **Belzona 4911** if application is subjected to severe loads. Please refer to **Belzona 4911** Instructions for Use for application details.

2. COMBINING THE REACTIVE COMPONENTS

Belzona 4154 is supplied in two packs of 3.25 kg each and bulk units. While mixing may be carried out by hand, due to the bulk size and stiffness of the materials it is essential that a mechanical mixer is used when mixing large amount of product to ensure thorough mixing, as described below.

1. With the mixer running, empty the entire contents of the Base and Solidifier units of **Belzona 4154** into the mixing bucket. Allow the mixer to run 1-2 minutes to achieve a homogenous mix.
2. Immediately with the mixer still running, slowly add the aggregate (refer to Note 4 "Aggregate Recommendation") into the resin and continue mixing until the desired consistency is obtained (refer to the following item 3 for mixing ratio guide). Mix for 5 minutes and then proceed immediately to Section 3 "Applying **Belzona 4154**".
3. For screeding or trowelling consistency, add the aggregate to the mixed resins according to the following:

Mixing ratio	As a guide
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(Base:Solidifier:Aggregate) 6.7:1:53 by weight	3.25 kg (7.16 lb) unit of Belzona 4154 (Bulkfill Resin) with a maximum of 22.5 kg (50 lb) aggregate
(Base:Solidifier) 6:1 by volume	2.55 liter (86.2 US oz) of Belzona 4154 Base and 0.43 liter (14.5 US oz) of Belzona 4154 Solidifier with a maximum of 22.5 kg (50 lb) aggregate

The maximum amount of aggregate should be considered to avoid poor performance. Additional **Belzona 4154 (Bulkfill Resin)** may be added to achieve pouring consistency.

4. **Belzona 4154** (Bulkfill Resin) is **NOT** intended to be used as a stand-alone product, therefore should **NOT** be used by itself. If it is desired to use the resin only, Belzona advises to use **Belzona 4151** (Magma-Quartz Resin) instead. Please refer to the relevant Instructions for Use.

NOTES

1. WORKING LIFE

From the commencement of mixing, **Belzona 4154 with aggregate** must be applied within the times shown below:

Temperature	50°F (10°C)	59°F (15°C)	68°F (20°C)	77°F (25°C)
Use all material within	2 hours	1 hour	45 mins	30 mins

These times are based on the aggregate being added to the mixed Base and Solidifier. Use of small amounts will reduce the usable life.

2. VOLUME CAPACITY OF MIXED BELZONA 4154 WITH AGGREGATE

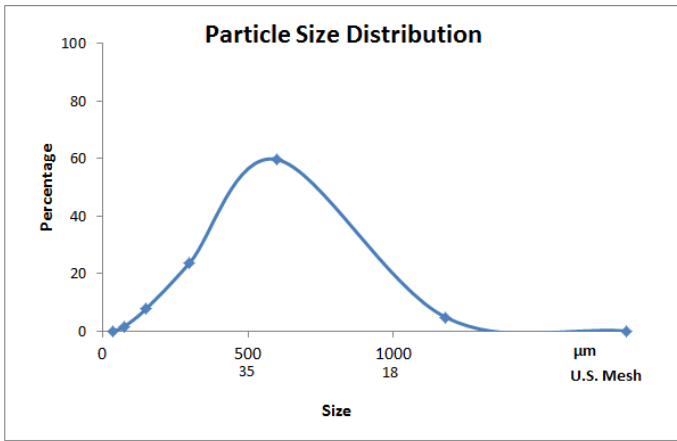
The volume capacity is typically 770 in³ (12700 cm³) per 22.5 kg (50 lb) aggregate. The practical volume capacity will vary according to the characteristics of aggregate.

3. COVERAGE RATE OF MIXED BELZONA 4154 WITH AGGREGATE

The coverage rate is typically 10.7 ft² (1.0 m²) at an average thickness of 0.5 in (12 mm) per 22.5 kg (50 lb) aggregate. The practical coverage rate will vary according to the characteristics of aggregate.

4. AGGREGATE RECOMMENDATION

The following general guideline for the aggregate should be followed when a non-Belzona aggregate is to be used. The aggregate should be **dry, clean, round/rectangular silica sand** with the particle size distribution shown in the graph below:



Smaller or bigger particle size will affect the performance of the final product. Please contact Belzona TKL for further information.

3. APPLYING BELZONA 4154

Apply the mixed **Belzona 4154** directly on to the prepared surface. First spread to a general level using normal screeding techniques and then tamp down firmly with the trowel or float to remove entrapped air, to compact the **Belzona 4154**, and to ensure maximum contact with the surface.

Belzona 4154 should be applied within 6 mm of the final desired surface, and 6 mm of screed of **Belzona® 4111** or **Belzona 4131** should be applied on top.

NOTES

1. APPLICATION LIMITS

Belzona 4154 can be applied when the temperature is anywhere between 50°F (10°C) and 77°F (25°C). If the temperature is below 50°F (10°C) the material may be too stiff for an easy mixing and application. With the temperature above 77°F (25°C) the material may be somewhat “fluid” and will have a short usable life.

2. CLEANING

All mixing tools should be cleaned immediately after use with **Belzona 9111** (Cleaner/Degreaser) or any other effective solvent, e.g. MEK. Brushes and other application tools should be cleaned using a suitable solvent such as **Belzona 9121**, MEK, acetone or cellulose thinners.

3. STORAGE

The Base component of **Belzona 4154** has the tendency to crystallize after a long term storage. Maintaining the storage temperature above 77°F (25°C) should sufficiently minimize the risk of crystallization.

4. APPLICATION OF BELZONA 4111 OR BELZONA 4131

Belzona 4154 should be overcoated within 24 hours with either **Belzona 4111** or **Belzona 4131** using **Belzona 4911** between layers.

If left longer than for 24 hours, the surface of **Belzona 4154** must be abraded prior to application of **Belzona 4111** or **Belzona 4131** System.

5. COMPLETION OF THE MOLECULAR REACTION

Allow **Belzona 4154** to solidify for the times shown in the table below before subjecting it to the conditions indicated:

Temperature	Overcoating	Full mechanical hardness
50°F/10°C	12 hours	3 days
59°F/15°C	8 hours	2 days
72°F/22°C	6 hours	24 hours
77°F/25°C	5 hours	16 hours

HEALTH & SAFETY INFORMATION

Please read and make sure you understand the relevant Safety Data Sheets.

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