

## Technical Data Sheet

# CROSflow® 820 Bulk Filler

**CROSflow® 820 Bulk Filler** is a cementitious, non-structural, bulk fill floor underlayment with exceptional adhesion properties. **CROSflow® 820 Bulk Filler** is suitable for internal applications where a thickness of between 5mm and 80mm is required. Use **CROSflow® 820 Bulk Filler** over new or old concrete floors prior to the application of floor coverings. Can be used for bulk filling applications, creating ramps and falls in screeds.

### Recommended Uses:

- Creating floor grades, ramps, or falls to floor wastes
- Indoor applications
- Residential and commercial applications
- New construction
- Refurbishment of old floors
- Underlayment for carpet, carpet tiles and ceramic tiles after 4 hours cure – refer to Temperature Considerations
- Underlayment for vinyl and timber after 24 hours cure – refer to Temperature Considerations

### Advantages:

- May be applied to a thickness of up to 80mm in one application
- Fast Setting
- Tear and rain resistant PE bags which are recyclable and reduce product loss from damaged packaging
- Highly accurate and consistent bag weights
- Excellent adhesion
- Exceptional workability
- Can also be screeded to create floor grades, ramps, or falls to waste
- Trafficable at 2 hours
- Accepting of certain floor coverings after 4 hours – refer to Temperature Considerations



### Surface Preparation:

Concrete floors must be structurally sound, clean, and dry. Surface must be free from dust, dirt, wax, grease, asphalt, latex and gypsum compounds, adhesives, paint, curing and sealing compounds and other contaminants

which may act as a bond breaker. Concrete must be free from laitance, efflorescence and not be subject to hydrostatic pressure. Mechanically prepare the floor using recommended preparation methods such as shot blasting, scarifying, diamond grinding, or other suitable methods to provide a roughened, clean, sound, solid and open porous surface. Acid etching is not a suitable method of preparing the subfloor. Remove all dust and debris from the floor by vacuuming the surface with a suitable H Class industrial cleaner – must be equipped with a Hepa filter.

All concrete sub floors must be fully cured and dry in accordance with AS 1884 (Less than 75% relative humidity

when measured in accordance with ASTM F2170). Ambient temperature, surfaces and materials should be maintained at temperatures higher than 10°C and below 35°C. For floors with a high humidity content or subject

All concrete sub floors must be fully cured and dry in accordance with AS 1884 (Less than 75% relative humidity when measured in accordance with ASTM F2170). Ambient temperature, surfaces and materials should be maintained at temperatures higher than 10°C and below 35°C. For floors with a high humidity content or subject to rising damp, apply **CROSflow® Moisture Vapour Barrier**. Refer to the **CROSflow® Moisture Vapour Barrier** TDS for details. Refer to Crosbe Technical Bulletin on Concrete Subfloor Preparation for detailed information on preparation of the subfloor.

### Priming:

Using a soft brush or broom, prime the prepared concrete area with CROSflow® Primer and allow primer to dry.

A second coat of primer may be necessary on areas with very porous surfaces where the initial coat has been completely absorbed. Allow the primer to fully dry to a clean, thin film (approx. 1- 2 hours depending on ambient conditions) before applying CROSflow® 820. Low temperature can delay the drying time of primer. Do not apply levelling until the primer has dried thoroughly.

### Mixing:

Place the recommended amount of potable water into a clean mixing vessel and whilst mixing, slowly add the entire 20kg contents of CROSflow® 820. Mixing should take place using a forced action high shear mixing paddle, with a mixer capable of stirring at 600rpm. Mix for approximately 2 – 3 minutes to a lump free consistency. Use mix within 15 minutes (levelling consistency) after mixing, be sure to only mix a quantity that can be use within this time. When mixing to a screed consistency, the working time will be 10 - 15 minutes.

| Consistency           | Litres / 20Kg Bag |
|-----------------------|-------------------|
| Levelling application | 3.5 – 3.7         |
| Screed application    | 2.8 – 3.0         |

- Do NOT overwater CROSflow® 820, use only the recommended mix water volume.
- Do NOT use a concrete or masonry mixer to mix CROSflow® 820.
- Do NOT mix by hand.
- Do NOT attempt to retemper mixed product once the working time has been exceeded.

### Application:

#### Levelling Application

Pour the mixed CROSflow® 820 onto the prepared substrate and spread into place using a long handled gauged spreader. CROSflow® 820 seeks its own level during the first 10 - 15 minutes after pouring. Subsequent applications of leveller should be made whilst the material on the floor is still fluid and has a wet edge, to allow for easy blending. It is recommended that spiked boots be worn, to minimise any indentations in the product whilst still fluid.

#### Screed Application

Pour the mixed CROSflow® 820 onto the prepared substrate and spread into place using a screed bar or power screed to the desired thickness or fall. The CROSflow® 820 can be applied up to 80mm thick in one application. Thicker applications may require a longer cure.

### Set Time:

Allow a cure time of 2 hours at 23°C for foot traffic. Allow CROSflow® 820 to cure 4 hours at 23°C before applying any subsequent floor coverings. These times can be impacted by air temperature, substrate temperature and relative humidity. Thicker layers will extend drying times.

### Coverage:

20kg bag of CROSflow® 820 will cover approximately 1.1m<sup>2</sup> at 10mm thickness for a leveller consistency, and 1.0m<sup>2</sup> at 10mm thickness for a screed consistency.

## Clean Up:

Wash all tools in water immediately after use.

## Temperature Consideration:

The mechanism of interaction between cement and water is temperature sensitive. The set time is delayed at low temperatures and is accelerated at high temperatures. To avoid significant change in setting times, the recommended water temperature and ambient temperature ranges are:

**Water Temperature Range:** 15 – 25 °C. Working with temperatures outside of this range will also impact the fluidity of the grout.

**Ambient Temperatures:** Do not grout at a temperature less than 10 °C. Above 30 °C, consider using cooled water for mixing the product. Do not grout in temperatures above 35 °C.

**Substrate Temperature:** Do not apply onto a surface which has a temperature less than 10 °C or above 35 °C.

## CROSflow® 820 – Product Data:

| Property                                    | Test Result - Levelling     | Test Result - Screed        |
|---|-----------------------------|-----------------------------|
| <b>Working Time at 23 °C</b>                | 15 minutes                  | 10 - 15 minutes             |
| <b>Fresh Mix Density (kg/m<sup>3</sup>)</b> | 2015                        | 2166                        |
| <b>Yield (L/20kg Bag)</b>                   | 11.2L @ 3.5L water addition | 10.5L @ 2.8L water addition |
|   | 11.3L @ 3.7L water addition | 10.3L @ 3.0L water addition |
| <b>20 Kg Bags per cubic metre</b>           | 90 @ 3.5L water addition    | 95 @ 2.8L water addition    |
|   | 89 @ 3.7L water addition    | 94 @ 3.0L water addition    |
| <b>Foot Traffic at 23 °C</b>                | Approx. 2 hours             | Approx. 2 hours             |
| <b>Floor Coverings at 23 °C</b>             | Approx. 2 hours             | Approx. 2 hours             |
| <b>Setting Times at 23 °C</b>               | Initial: 80 minutes         | Initial: 60 minutes         |
|   | Final: 90 minutes           | Final: 70 minutes           |
| <b>Compressive Strength</b>                 | 1 Day: > 20 MPa             | 1 Day: > 38 MPa             |
|   | 7 Day: > 30 MPa             | 28 Days: > 42 MPa           |
|   | 28 Day: > 40 MPa            | 28 Day: > 50 MPa            |
| <b>Application Thickness</b>                | Minimum: 5mm                | Minimum: 5mm                |
|   | Maximum: 80mm               | Maximum: 80mm               |

**Testing Parameters:** 18% of water for levelling consistency 14.5% for screed consistency. Laboratory at: 23±2 °C > 50% RH. The performance data is typical and based upon controlled laboratory conditions. Actual performance on the job site may vary from these values based on actual site conditions.

#### **Precautions:**

- This product is designed as an underlayment and must not be used as a trafficable wearing surface.
- Do not use externally or in areas where the underlayment or subfloor is likely to be exposed to submersion, wetting or high levels of humidity.

#### **Packaging:**

20kg Polyethylene (PE) bags.

#### **Shelf Life & Storage:**

##### **Shelf Life**

The shelf life of the product is 18 months from the date of manufacture, if stored indoors in accordance with recommended storage conditions.

##### **Storage:**

Store in dry conditions, in unopened and undamaged PE bags and in temperatures below 30 °C. If stored in excessive temperature conditions, externally exposed to the elements or in high humidity conditions, the shelf life may be reduced.

#### **Safety Data:**

This product may cause irritation and an allergic reaction to the skin. It may cause serious eye injury and irritation to the respiratory system. In case of contact with the eyes rinse with running water (15 mins) including removal of contaminated clothing. Wear protective gloves, clothing, eye, and face protection. Avoid inhaling dust/ fume/gas/mist/vapours/spray. Ensure adequate ventilation during mixing and application. A class P2 dust mask is recommended for use when handling powdered material, and whilst grinding or scabbling floors. For detailed information, refer to the SDS for CROSflow® 820, available at [www.crosbe.com](http://www.crosbe.com).