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**ASTM D 638** 

**Technical Bulletin** 

# Flexfill 80 Polyurea Joint Filler – K-554

**Description:** 

Flexfill 80 has been specifically designed for filling sawcut control joints and contraction joints in concrete. Flexfill 80 is a two component, 100% solids, VOC free, rapid setting, polyurea system that cures to a semi-rigid resiliency which supports joint edges to prevent edge deterioration and concrete spalling. Flexfill 80 joint filler bonds tightly to the sides of concrete joints, prevents contaminant and water penetration and delivers high wear resistance and durability.

**Product** 

**Advantages:** 

- FAST, FLUSH SHAVE TIME IN AS LITTLE AS 15 MINUTES
- COLORFAST RESISTING FADING AND DISCOLORATION
- MOISTURE TOLERANT
- IDEAL 1:1 MIX RATIO
- EXCELLENT SUBSTRATE ADHESION

Handling **Properties:** 

MIX RATIO BY VOLUME: 1:1
COLOR: Grev

GELTIME: 30 seconds @ 72°F APPLICATION THICKNESS: 1/8" or greater

SHAVE TIME: 15 minutes – 24 hours @ 72°F

CURING TIME: 1 hour @ 72°F

MIXED VISCOSITY@ 77°F: 2,000 cPs ASTM D 2196

Physical Properties:

TENSILE STRENGTH: 400-500 psi %TENSILE ELONGATION: 120-150%

HARDNESS (SHORE A): 78-82A ASTM D 2240

## WHAT TYPE OF JOINT ARE YOU FILLING?

TYPE 1		TYPE 2	
USE FLEXFILL 80 HERE		DO <u>NOT</u> USE FLEXFILL 80 HERE	
Names*:	Control joint Contraction joint Non-working joint	Names*:	Expansion joint Isolation joint Working joint Significant movement Formed
Characteristics:	No movement or negligible movement Sawcut	Characteristics:	Significant movement Formed

<sup>\*</sup>Name distinctions are based on American Concrete Institute, ACI 504R-90

Joint Preparation:

Any loose concrete, previous joint compound or other materials must be removed to leave a clean, sound joint. In addition, all dirt, oil, sealers or chemical residue must also be removed for the full intended filler depth. To achieve optimum performance the joint must be sawcut with a diamond blade (if possible vacuum-equipped) in order to achieve a clean/dry surface for bonding. The blade should be run against each sidewall and extended the entire intended filler depth. After sawing, the joint should be vacuumed to remove all dust/debris ("raking" debris out of joint is an unacceptable joint cleaning procedure).

### Mixing/dispensing:

The Part A polyol should be pre-mixed using a Jiffy Mixer for 1-2 minutes to evenly disperse the colorant throughout the system. A ½" diameter, 30-40 element static mixer is recommended for proper mixing of the Flexfill 80 using power dispensing equipment. If a flush joint is desired slightly overfill the joint, allow to cure, then use a floor scraper or knife-edge to cut the material flush with the concrete.

Flexfill 80 has a work life of <30 seconds at 72 °F (22 °C) and can be applied as thickly as needed in one pass. If it is necessary to bond Flexfill 80 to itself, abrade the old material before applying new material.

## **Application:**

Flexfill 80 should not be installed on "green" concrete. A minimum 30-day concrete cure is required. 60-90 days or longer is ideal. The ideal time to install is when the area is at its long term, stable temperature. Do not rapidly change the temperature of the air/concrete before installing Flexfill 80. Keep the temperature constant and near the long term temperature. Floor temperature must be between 60-80 °F (15.6- 26.6°C) during application for complete cure. Colder temperatures may inhibit the cure resulting in a sticky surface. The liquid material should be stored at 70-80 °F prior to installation.

#### **Additional Info:**

Important product characteristics include tensile strength, percentage tensile elongation and Shore A hardness.

- These characteristics relate to Flexfill 80 after it has completely cured.
- In simple terms:

<u>Tensile strength</u> relates to the capacity of this material to hold together when stretched.

Percentage tensile elongation is the length the material can be stretched before failure.

<u>Shore A hardness</u> relates to a standard for "hardness -softness" so that different materials may be measured against the same reference point.

Flexfill 80 has been designed to function as a joint filler. It must stretch or give to allow for expansion or contraction within the concrete slab. At the same time it must deliver adequate support to joint shoulders receiving the force of hard wheel traffic carrying heavy loads. It must bond to joint sides to provide a seal to prevent contaminant entry and its surface texture must deliver sufficient wear capacity. Extensive tests and use of Flexfill 80 demonstrate these capacities.

## **Packaging:**

K-554 (10 gallon) premeasured kits

## **SAFETY PRECAUTIONS**

Flexfill 80 is a polyurea resin system. Please refer to safety data sheets before using this product. DO NOT WELD ON, BURN OR TORCH ON OR NEAR ANY POLYUREA MATERIAL.

## **WARRANTY AND DISCLAIMER**

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