10500 N. Commerce Street Mequon, WI 53092-4473 262-238-1700 (Tel.) 262-238-1701 (Fax) www.coppsindustries.com

**Technical Bulletin** 

## Flexfill 60 Joint Filler - K-057

**Description:** 

Flexfill 60 is a semi-rigid epoxy joint filler that has been specifically designed for filling sawcut control joints and contraction joints in concrete. Flexfill 60 is a two component, low viscosity liquid which cures to a semi-rigid, hard-rubber-like resiliency which supports joint edges to prevent edge deterioration and concrete spalling. Flexfill 60 joint filler bonds tightly to the sides of concrete joints, prevents contaminant and water penetration, and delivers high wear resistance and durability.

Product Advantages:

- ALL EPOXY TECHNOLOGY
- EXCELLENT DURABILITY
- VOC and BGE¹FREE
- HIGH RESILIENCY
- IDEAL 1:1 MIX RATIO
- VERY "FLOWABLE" CONSISTENCY NEGLIGIBLE SHRINKAGE
- EASILY COATED WITH COMPATIBLE TOPPINGS
- BONDS TO MOST CONSTRUCTION MATERIALS

Handling **Properties:** 

MIX RATIO BY VOLUME:

COLOR:

WORKLIFE, AFTER MIXING RESIN & HARDENER:

APPLICATION THICKNESS:

CURING TIME:

MIXED VISCOSITY @ 72°F:

1:1

ight grey

1 hour @ 72°F

1/8" or greater

16 hours

5000 cP

Physical Properties:

TENSILE STRENGTH: 360 psi ASTM D 638
% TENSILE ELONGATION: 46 ASTM D 638
HARDNESS (SHORE A): 70 – 80 ASTM D 2240

## WHAT TYPE OF JOINT ARE YOU FILLING?

	TYPE 1	TYPE 2			
USE FLEXFILL 60 HERE		DO <u>NOT</u> USE FLEXFILL 60 HERE			
Names*:	Control joint	Names*:	Expansion joint		
	Contraction joint		Isolation joint		
	Non-working joint		Working joint		
			Significant movement Formed		
Characteristics:	No movement or negligible	Characteristics:	Significant movement		
	movement		Formed		
	Sawcut				
Typical Application:		Typical Application:			
Sawcut Control Joint		Butt Joint or Lap Joint			
Top of Slab 🤿		Top of Slab 🤿			
		Butt Joint			
Flexfill 60	Sand Bond Breaker	-Ĉ	Bottom of Slab		
	음 Bottom of Slab	Lap Joint	L		

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

<sup>1-</sup>Butyl Glycidyl Ether. The EPA (SARA Title III, section 312) lists BGE as "Toxic" (per ANSI Z129.1) by skin absorption and an immediate health hazard.

# 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 saw cut 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, joint should be vacuumed to remove all dust/debris ("raking" debris out of joint is an unacceptable joint cleaning procedure). To prevent filler run-through you may "choke-off" the bottom of the joint by applying a ¼" deep (maximum) layer of dry, silica sand (30-60 mesh). Do not use a backer rod in saw cut contraction/control joints less than 2" deep. For those joints greater than 2" and construction joints (through-slab) you may use silica sand or a backer rod only if it is held down at least 2" from the top of joint.

# Mixing:

Mix the Resin (Part A) and the Hardener (Part B) for 2-3 minutes with a slow speed (500 rpm or less) drill and Jiffy Mixer (mixing paddle). Pour the material into the joint. If a flush joint is desired slightly overfill the joint and let cure overnight, then use a floor scraper or knife-edge to cut the material flush with the concrete. If the joint material is to be top coated, no cutting is necessary.

If you need less than a full kit, do not "eyeball" the mixture. Accurately weigh or measure the resin and hardener following the mixing ratios under "Handling Properties". Flexfill 60 has a work life of one hour at 72  $^{\circ}$ F (22  $^{\circ}$ C), and can be applied as thickly as needed in one coat. If it is necessary to bond Flexfill 60 to itself, abrade the old material before pouring new material.

Flexfill 60, before it has fully cured, may be removed from tools with Copps Enviro Kleen solvent or isopropyl alcohol.

## **Application:**

Flexfill 60 should not be installed on "green" concrete. A minimum 30-day concrete cure is required. 90-120 days 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 60. Keep the temperature constant, same as long term temperature. Floor temperature must be between 60 - 90 °F (15.5 - 32.2 °C) during application for complete cure. Temperatures below 50 °F (10 °C) will inhibit the cure resulting in a sticky surface. The liquid material should be stored at 60-90 °F prior to installation.

#### **Additional Info:**

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

- These characteristics relate to Flexfill 60 after it has completely cured.
- In simple terms:

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

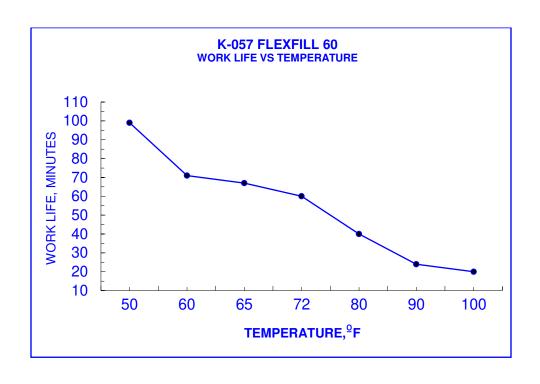
**Percentage tensile elongation** is the length the material can be stretched before failure.

<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 60 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 60 demonstrate these capacities.

### Packaging:

K-057-5 (0.5 gallon) =  $108 \text{ in.}^3 = 24 \text{ linear ft. in } 1/4" \times 1-1/2" \text{ joint}$ K-057-21 (2 gallons) =  $457 \text{ in.}^3 = 101 \text{ linear ft. in } 1/4" \times 1-1/2" \text{ joint}$ 



### JOINT FILLER ESTIMATING CHART

#### **LINEAL FEET PER GALLON**

JOINT WIDTH	1/4"	1/2"	3/4"	1"	1-1/4"	1-1/2"
JOINT DEPTH						
1/2"	154.0					
3/4"	102.7					
1"	77.0	38.5				
1-1/4"	61.6	30.8				
1-1/2"	51.3	25.7	17.1			
1-3/4"	44.0	22.0	14.7			
2"	38.5	19.3	12.8	9.6		
2-1/2"	30.8	15.4	10.3	7.7	6.2	
3"	25.7	12.8	8.6	6.4	5.1	4.3

Move across "Joint Width" row to the width of your joint, then down its column to match the corresponding depth of your joint in the "Joint Depth" column. The number of lineal feet filled with one gallon of material is specified at the intersection.

#### **SAFETY PRECAUTIONS**

Flexfill 60 is an epoxy resin system. Please refer to safety data sheets before using this product. DO NOT WELD ON, BURN OR TORCH ON OR NEAR EPOXY MATERIAL.

## **WARRANTY AND DISCLAIMER**

Copps Industries, Inc. gives no warranty, express or implied, and all products are sold upon condition that purchasers will make their own tests to determine the quality and suitability of the product. Copps Industries, Inc. shall be in no way responsible for the proper use and service of the product. The information given in this publication is considered to be accurate and reliable and is provided as a service only. Physical properties shown are typical. Actual properties are dependent on curing conditions and degree of cure. Any information or suggestions given are without warranty of any kind and purchasers are solely responsible for any loss arising from the use of such information or suggestions. No information or suggestions given by us shall be deemed to be a recommendation to use any product in conflict with any existing patent rights.