



TECHNICAL DATA SHEET

AV-580 JOINT FILLER EPOXY™

JOINT FILLER

DESCRIPTION

AV-580 Joint Filler Epoxy has been specifically designed for filling sawcut control joints and contraction joints in concrete. **AV-580** is a two component, 100% solids, VOC free, thermosetting epoxy system that cures to a semi-rigid resiliency which supports joint edges to prevent edge deterioration and concrete spalling. **AV-580** bonds tightly to the sides of concrete joints, prevents contaminant and water penetration and delivers high wear resistance and durability.

APPLICATION

- Control joints and contraction joints in concrete
- Use only on Type 1 joints
- Use only on fully cured concrete (minimum 30 day old; ideally 60-90 day old concrete).

FEATURES AND BENEFITS

- Non-shrink
- User friendly mix ratio 1:1 by volume
- Flush shave time in as little as 3.5-4.0 hours
- Excellent substrate adhesion

FILLING TECHNIQUES

- Gravity feed
- Manual or power dispensing equipment

PACKAGING

10-Gallon Kit

Resin	5.0 gallons
Hardener	5.0 gallons

SHIPPING

- Motor Class 70
- Resin: Not Regulated
- Hardener: UN2735, Amines, Liquid, Corrosive, N.O.S. (Polyamidoamine, Aliphatic amine)
- Air freight available

CLEANING PRODUCTS

- **AV-544** Epoxy Tool Cleaner™ (Proprietary Blend) – removes uncured and cured resin from equipment
- **AV-208** Technical Grade Acetone™ (CAS# 67-64-1) – removes uncured resin from equipment
- **AV-222** Cleaner™ (Proprietary Blend) – removes cured resin from equipment

STORAGE

Store between 60°F – 80°F (16°C – 27°C) in a dry atmosphere. Keep containers closed. Temperatures below 60°F (16°C) may cause partial crystallization of the resin. If crystallization has occurred, heat the resin in its original container placing it into another container with hot water.

SAFETY

Always use OSHA-approved personal protective equipment (PPE). Refer to the SDS for complete safety precautions. The SDS is available by request or via download at avantigrout.com.

NOTICE

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PROPERTIES*

AV-580 UNCURED Resin and Hardener

Appearance:	Grey
Mixed Viscosity:	3,200 cP @ 68°F (20°C)
Flash Point:	Resin: >144°F (>62°C) Hardener: >144°F (>62°C) CC
Density:	8.6 lb./gal
Working Time:	12 minutes @ 77°F
Gel Time (300 g)	18 minutes @ 77°F
Shave Time (300 g)	3.5-4.0 hours @ 72-77°F
Cure Time	24 hour @ 72-77°F

AV-580 CURED

Tensile Strength:	5,516 KPa (800 psi) – ASTM D638
Elongation @ break:	31% - ASTM D638
Hardness Shore D	49 - ASTM D2240
Hardness Shore A	95 – ASTM D2240

*Laboratory Results

AV-580 Epoxy Joint Filler is for Type 1 Joints ONLY

Name:	Control Joint Contraction Joint Non-working Joint
(ACI 504R-90)	
Characteristics:	No or negligible movement Sawcut

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 PROCEDURE

Before blending Resin and Hardener stirring may be necessary, especially in case of filled materials. Mix 1 part Resin (Part A) to 1 part Hardener (Part B) for 3 minutes using a Jiffy Mixer and a slow speed drill. Mix at slow speed (less than 500 rpm) to avoid air entrainment. **DO NOT mix more material than can be used within the stated working time.** REMEMBER - you will have less working time at higher temperatures. In case of hand mixing, periodically scrape the walls and the bottom of the container to avoid unmixed material which will result in soft spots after curing. Once the Resin and Hardener are mixed together an exothermic reaction takes place developing some heat which accelerates the process of cure. The viscosity of such a self-heating system first decreases then, at the end of the GEL TIME, increases until the material gels. At this moment the temperature of the product keeps rising, and in the case of large batches can result in overheating with unpleasant fumes and smoke.

AV-580 Joint Filler Epoxy may be removed from tools with Avanti's **AV-544** Epoxy Tool Cleaner or warm soapy water before they are fully cured.

CURING INFORMATION

The time to full cure depends upon the volume applied. Thin portions harden slower than thick ones. The curing time may be reduced by using any source of heat like heat lamp or heat gun. 24-48 h @ 72-77°F (22-25 °C) is usually enough for the complete cure.