

# Durex<sup>®</sup> EMC Knife Grade

## Acrylic, Elastomeric Crack Filler

**Description** Durex<sup>®</sup> EMC Knife Grade is a one-component water-based, elastomeric, acrylic crack filler and repair product. It is used primarily to fill cracks in concrete or other masonry-type surfaces prior to coating them with any one of our Durex<sup>®</sup> Architectural Coatings. It is a highly filled paste that dries with minimal shrinkage. It is an internally plasticized, non-sag, thixotropic formulation which eliminates unsightly “telegraphing through” spots which commonly occur when externally plasticized crack fillers are used. Its unique formulation results in a weather-proof coating with excellent adhesion to numerous substrates, especially concrete and/or masonry, and minimal shrinkage which allows it to remain flexible through many thermal cycles.

**Uses** Durex<sup>®</sup> EMC Knife Grade can be used to fill cracks up to 6mm (1/4”) width by 6mm (1/4”) depth in numerous substrates such as the following:

- Concrete
- Cementitious plasters
- Brick
- Stucco
- Concrete masonry units
- Cement boards
- Exterior Insulation & Finish Systems (EIFS)

### TECHNICAL DATA

PHYSICAL PROPERTIES	
Product Type	Acrylic-based elastomeric coating
Appearance	Paste
Viscosity	Paste
pH Level	9.0 to 9.5
Toxicity	Non-toxic
Minimum Film-forming Temperature	5°C
Shelf Life	3 years
Curing Time	2 hours tack free (at 20°C) 48 hours full cure (at 20°C)
PERFORMANCE PROPERTIES	RESULT
Film Thickness	0.26 mm (1 coat dry)
Permeance	195.3 ng/Pa.s.m <sup>2</sup> @ 25°C
Flexibility	180° over 1/8” rod at -20°C no cracking
Adhesion	220 newton axial load: pass
Tensile Strength (max)	203 psi @ 25°C; 710 psi @ 0°C
Elongation at Break	355% @ 25°C; 130% @ 0°C
Dirt Pick-up Resistance	Excellent
Recovery After 24 hours	100%

**Packaging** Durex<sup>®</sup> EMC Knife Grade is packaged in 3.8 lt (1gal) and 1 lt (1qt) containers and is available in all Durex Standard Colours. Custom colours are available upon request at a nominal cost.

**Storage** Store Durex<sup>®</sup> EMC Knife Grade in a dry, vented, waterproof location, stacked off the ground with ambient temperatures above 5°C (41°F).

**Surface preparation** Substrate must be dry, solid, clean, and free of weak and powdery surfaces, dust, dirt, oil, grease, laitance, efflorescence, mildew, fungus, biological residues and other deleterious substances detrimental to a positive bond. (Consult Durabond Products Limited for questionable substrates). Remove from all cracks loose, friable, delaminated and foreign material by using one of the following methods: high pressure compressed air, vaccum, or other approved mechanical means, such as hand-held power grinders/routers equipped with small diameter blades. Rinse all cracks with clean water to remove all dust, dirt, grease, oils or any other contaminants detrimental to a good bond, and allow to dry.

**Hairline cracks:** 0.79mm (1/32") or less in width: clean cracks as described in the above recommendations and apply a coat of Durex® Dur-X-Cel Primer if the substrate is chalky. After the Durex® Dur-X-Cel Primer has dried, apply a coat of Durex® EMC Knife Grade and allow to dry.

**Small cracks:** 0.79 to 1.6mm (1/32" to 1/16") in width: clean cracks as per the above-described recommended methods, rinse with clean water and allow to dry. Apply a coat of Durex® Dur-X-Cel Primer if the substrate is chalky. After the Durex® Dur-X-Cel Primer has dried, apply Durex® EMC Knife Grade by using a broad knife, spatula or a caulking gun, allowing a 25mm (1") overlap on either side of the crack.

**Larger cracks:** 1.6mm to 6.4mm (1/16" to 1/4") in width: cut open or router cracks to 6.4mm (1/4") wide by 6.4mm (1/4") deep. Clean cracks by rinsing with clean water to remove all dust, dirt or other contaminants. Apply a coat of Durex® Dur-X-Cel Primer if the substrate is chalky, and allow to dry. Apply a bond-breaker tape to the bottom of "squared" crack. Apply Durex® EMC Knife Grade by using a broad knife, spatula or a caulking gun allowing a 25mm (1") over on either side of the crack.

**DO NOT SUBSTITUTE NOR COMPENSATE DUREX® EMC KNIFE GRADE WITH WATER OR OTHER ADDITIVES.**

**Note:** Durex® EMC Knife Grade is not intended to be used as joint sealant. For cracks or joints that are greater than 6.4mm (1/4") in width please contact a sealant manufacturer for their recommendations) upon request at a nominal cost.

#### Limitations

Durex® EMC Knife Grade is designed to be used on vertical substrates which will be coated with any of our Durex® Architectural Coatings.

- Do not use below grade
- Do not apply at temperatures below 5°C (41°F)
- Do not apply to green concrete (less than 28 days old)
- Do not apply to frozen substrates
- Do not use on cracks greater than 6mm X 6mm (1/4"X1/4")
- Do not apply if rain is expected within 12 hours

#### Clean-up

Clean all tools promptly after each use with clean water. Do not allow the product to dry on tools. Durex® Cleaning Solution CS-100 is available to aid cleaning of soiled areas where the Durex® EMC Knife Grade has dried.

#### Yield

Crack size (depth x width)  
Lineal Feet (metres)/ 3.8lt (1gal)  
3.2mm X 3.2mm (1/8" X 1/8") 1232 ft (30.2m)  
3.2mm X 6.4mm (1/8" X 1/4") 616 ft (15.1m)  
6.4mm X 6.4mm (1/4" X 1/4") 24.8 ft (7.6m)

#### Health and Safety

For information and advice on the safe handling, storage and disposal of chemical products, refer to the most recent MSDS sheet containing physical, environmental, toxic and other safety/materials handling data. For industrial use only. Keep out of reach of children.

#### Warranty

Durabond warrants this product is free of manufacturing defects, and will replace at no charge, provided it has been applied within 12 months of purchase, it has been installed for uses suitable for this product and in accordance with the manufacturer's instructions.

#### Technical Services

Technical support is available upon request at [info@durabond.com](mailto:info@durabond.com). For the latest version of this data sheet, please visit our website at [www.durabond.com](http://www.durabond.com), call toll free at 1-877-DURABOND (387-2266) or speak with your Durabond Products Ltd. sales representative.

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