



# DURAL MMA HEALER/SEALER

## METHYL METHACRYLATE PENETRATING SEALER

### PACKAGING

#### Dural MMA Healer/Sealer

1 gal (3.79 L) unit

Code: 044HS 01

5 gal (18.9 L) unit

Code: 044HS 05

50 gal (189 L) unit

Code: 044HS 50

#### Dural MMA Initiator

Initiator is required but sold separately due to varying quantity needed depending on jobsite conditions. See the chart under "Mixing" for estimating required quantity to order.

### CLEAN UP

Clean tools and application equipment immediately with acetone, xylene, or MEK. Clean spills or drips with the same solvents while still wet. Hardened DURAL MMA HEALER/SEALER will require mechanical abrasion for removal.

### SHELF LIFE

1 year in original, unopened, properly stored containers.

### DESCRIPTION

DURAL MMA HEALER/SEALER is a 100% reactive ultra-low viscosity methyl methacrylate resin used as a penetrating crack healer/sealer or to fortify extremely porous concrete substrates. DURAL MMA HEALER/SEALER is typically used on bridge decks, parking structures or as a general penetrating sealer to prevent moisture intrusion. DURAL MMA HEALER/SEALER is a reactive methacrylate resin, which hardens rapidly with the addition of DURAL MMA HEALER/SEALER INITIATOR, even at low temperatures.

### PRODUCT CHARACTERISTICS

#### FEATURES/BENEFITS

- Rapid cure, minimizes down time
- Use over wide temperature range - even below freezing
- Full cure in less than 60 minutes
- Ultra-low viscosity for excellent absorption into concrete
- Protects against water penetration into hairline cracks
- Low VOC content - 69 g/L

#### PRIMARY APPLICATIONS

- Parking decks
- Bridge decks
- Loading docks
- Warehouses

#### APPEARANCE

DURAL MMA HEALER/SEALER is clear to light amber.

#### COVERAGE

Coverage rate is approximately 80 to 100 ft<sup>2</sup>/gal per coat (1.96 to 2.45 m<sup>2</sup>/L per coat). Coverage rate will vary depending on the porosity of the concrete and quantity of cracks. Assume two coats on very absorbent surfaces.

**Note:** Coverage rates are approximate. Actual coverage depends on temperature, texture, and substrate porosity.

## TECHNICAL INFORMATION

The following are typical values obtained under laboratory conditions. Expect reasonable variation under field conditions.

Test Method	Test Property	Values
ASTM C1583	Bond Strength	> 300 psi (2.1 MPa)
ASTM C579	Compressive Strength, 7 days	12,500 psi (86.2 MPa)
ASTM C790	Flexural Strength, Final	11,000 psi (75.8 MPa)
ASTM 2240	Hardness, Shore D	> 80 min
N/A	Precent Reactive	100%
N/A	Recoat Time	25 to 60 minutes
ASTM D638	Tensile Elongation	4.5 to 5.0%
ASTM D638	Tensile Strength, Final	> 7,800 psi (53.8 MPa)
N/A	Viscosity (mixed) Brookfield Viscometer, Model RVT	5 to 15 cps
ASTM D570	Water Aborption, 24 hour	0.50%
N/A	Working Life Varies w/ temperature & hardener addition	5 to 25 minutes

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## DIRECTIONS FOR USE

**Surface Preparation:** The surface must be structurally sound, clean and free of grease, oil, curing compounds, soil, dust and other contaminants. New concrete and masonry must be at least 28 days old. Surface laitance must be removed. Concrete surfaces must be roughened and made absorptive, preferably by mechanical means, and then thoroughly cleaned of all dust and debris. Expose surface cracks and clean out cracks with oil-free compressed air. If cracks have latent moisture, use a propane torch to flame the concrete at a rate of 10 feet per minute or as needed to dry out cracks. Allow surface to cool to ambient temperature, then immediately begin to apply sealer. Do not apply if there is excessive moisture in the concrete or if the moisture vapor emission rate (MVER) is high. Contact Euclid Chemical if results indicate a MVER greater than 3.0 lbs. per 1,000 square feet per 24 hours. After surface preparation and moisture testing, a test section application of the healer/sealer is recommended to confirm good adhesion and compatibility of the healer/sealer with the surface, and also to confirm appearance and aesthetics.

**Mixing:** DURAL MMA HEALER/SEALER requires the addition of DURAL MMA HEALER/SEALER INITIATOR to start the hardening process. After adding the INITIATOR to the resin, use a low-speed drill and mixing paddle and mix for 2 minutes. The amount of Initiator must be adjusted to the respective surface temperature (see table below). At temperatures below 40 °F (4 °C), DURAL MMA HEALER/SEALER COLD TEMPERATURE ACCELERATOR must be used in addition to the amount of initiator used at the 40 °F level. As a rule of thumb, add about 0.5 oz by volume per gallon of resin at 39 °F to 32 °F (4 °C to 0 °C), up to 2.0 oz by volume per gallon at -20 °F (-29 °C), increasing the quantity gradually in a consistent linear progression as the temperature decreases.

DURAL MMA HEALER / SEALER RESIN			
Temp of Resin, Air & Floor	Initiator, Volume oz/gal	Working life, mins	Hardening Time, mins
+30 °F (-1 °C)	13 vol. oz + 0.5 vol. oz Accelerator	15	60
+40 °F (4 °C)	13 vol. oz	15	60
+50 °F (10 °C)	9 vol. oz	12 to 16	45 to 50
+60 °F (16 °C)	6 vol. oz	15 to 20	45 to 50
+70 °F (21 °C)	4 vol. oz	15 to 20	45 to 50
+80 °F (27 °C)	2* vol. oz	20 to 25	45 to 50
+90° to 105°F (32° to 41°C)	2* vol. oz	5 to 10	25 to 30

\*Note: Do not use less than 2 vol. oz. of DURAL MMA HEALER/SEALER INITIATOR

\*Note: There are 124 vol. oz. per 5 lb. box of DURAL MMA HEALER/SEALER INITIATOR

**VERY IMPORTANT:** MUST add Accelerator to the MMA resin and thoroughly blend BEFORE adding the MMA INITIATOR, or hazardous decomposition may occur (i.e., violent foaming).

**Application:** Inspect underside of elevated decks for evidence of full depth cracks that may require additional treatment to prevent draining of resin. Cracks greater than 1/8" width should be repaired individually prior to application of flood coat. Fill 1/8" or larger cracks with loose sand and pour small quantity of mixed DURAL MMA HEALER/SEALER into the crack and spread with a paint brush, allow to cure before applying flood coat. DURAL MMA HEALER/SEALER is spread evenly on the surface as a flood coat with a squeegee or rollers and allowed to absorb completely into the concrete substrate. Do not allow to form puddles. There should be very little resin film on the surface upon completion. Some applications may require the broadcast of silica sand at an approximate rate of 0.2 to 0.8 lbs/ft<sup>2</sup> (0.98 to 3.9 kg/m<sup>2</sup>) and/or until there are no wet spots. Wait until at least 15 minutes has elapsed since the DURAL MMA application before broadcasting aggregate, but broadcasting must be completed before DURAL MMA has become tack free. Before opening to traffic, remove any loose aggregate and verify that the skid resistant properties are adequate for the intended purpose of the substrate. Apply subsequent applications of resin only after the previous application is completely hardened.

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## PRECAUTIONS/LIMITATIONS

- Store DURAL MMA HEALER/SEALER indoors, out of direct sunlight, protected from moisture, at temperatures below 80°F (26 °C).
- Do not store near open flame or food.
- After extended storage: Additives and fillers can separate with storage, materials should be inspected for any visible signs of settlement, polymerization, or paraffin coagulation (clumps, strands).
- Do not thin DURAL MMA HEALER/SEALER.
- Adequate cross ventilation should be provided. Good ventilation during the processing ensures a good cross linking and hardening.
- Application of a test area is recommended to confirm final appearance and texture of the system with the end user.
- In all cases, consult the product Safety Data Sheet before use.

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