

Roadware MatchCrete™ Clear Standard Product Data Sheet

Product Name

Roadware MatchCrete™ Clear

Items numbers 71000, 71105, 71300, 71020

Manufacturer

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Product Description

Roadware MatchCrete™ Clear is a two component aliphatic polyurethane for repairing cracks, spalls, and joints in concrete subject to UV exposure from sunlight. This material is clear in appearance when applied and cured. Colored sand and pigments may be added to create color stable repairs that match most any decorative style or shade of concrete surface. MCC will not significantly change color with exposure to sunlight over time.

Roadware MatchCrete™ Clear is used to quickly repair cracks and spalls in concrete that is exposed to sunlight and a color compatible appearance over time is desired.

General Use

Repairing colored, stamped, or decorative concrete

Repairing polished concrete.

Repairing exposed aggregate concrete

Repairing any concrete surface where appearance is critical such as retail entryways, doorways and pool decks.

Repairing concrete floors that receive large amounts of sunlight such as lobbies and atriums.

Sizes

50 ml Mini Dual Cartridge with needle tip mixer 71105
21 fl oz. dual cartridge units (600 ml) with mixer (71300)
2 gallon kits (7.57 liters) in two parts (71020)

Color

Clear when applied and cured. Resists UV color change over time.

Yield

One liter of MatchCrete™ Clear will make 1000cc of repair material when applied neat. Adding sand and aggregate will increase the yield based on the gradation and amount of sand added.

Limitations

Roadware MatchCrete™ Clear should not be used in moving expansion joints that exceed the movement capability of the material.

Technical Data

Roadware MatchCrete™ Clear is a low viscosity repair material with properties and performance that are well-suited for non-structural repair applications. The material provides excellent penetration of voids, ability to flow into fine cracks, rapid hardening, good adhesion and bond, and high deformability to provide a durable repair. The shrinkage of MatchCrete™ Clear is low and should not pose concern for debonding or delamination due to volume changes. The properties of Roadware MatchCrete™ Clear are summarized below.

Property	Measured Value (average)
Tensile Strength at break (ASTM D-638-10)	1523 psi (10.5 Mpa)
Tensile Strength at yield (ASTM D-638-10)	1437 psi (9.9 Mpa)
Hardness	60D
Bond Strength	Excellent
Elongation at break (ASTM D-638-10)	58.3%
Elongation to yield in tension (ASTM D-638-10)	7.47%
Modulus of Elasticity (ASTM D638-10)	55.8 ksi (384.7 Mpa)
Viscosity Side A (Brookfield)	280 cps
Viscosity Side B (Brookfield)	100 cps
Cure time Tack-Free 72° F (22C)	45 minutes
Gel time 72° F (22C)	6 minutes
Full Cure 72° F (22C)	24 hours
V.O.C. Content after catalyzation.	Zero
Shelf Life	12 months

In summary, Roadware MatchCrete™ Clear is a strong and flexible repair material suited for sealant applications. The material bonds well to concrete and will easily conform to slight deformations at repaired joints. The combination of good bond and low modulus predicts good service as a sealant or other non-structural repair material for concrete structures.

Installation

Surface Preparation:

Surface Cracks (all depths and widths): Cracks should be free of dirt, oils, dust, latents and old crack repair materials. ALL SURFACES MUST BE CLEAN AND DRY AS POSSIBLE. New concrete must be fully cured. A dry diamond blade attached to an electric hand grinder is recommended for preparing cracks and creating a clean surface for bonding. A wire brush or twisted wire wheel on a grinder may be used in some cases.

Surface Spalls and Deflections: Remove all loose materials back to sound concrete with a chisel or light chipper. DO NOT SQUARE CUT THE REPAIR AREA. If a square appearance is necessary, lightly score surface and remove material. Use a wire brush or twisted wire wheel to clean the repair area. All surfaces must be free of dirt, oils, dust, latents and old repair materials. For feather edge repairs in high traffic areas, score the repair edge with a dry diamond blade 1/4" deep around the perimeter of the repair. New concrete must be fully cured.

Exposed Aggregate: Remove any loose aggregate or concrete materials. Clean the repair area with a wire brush is similar method.

Application Temperature:

Recommended application temperature is between 40° F and 100° F (5° to 38°C). It is best to keep material at room temperature 60° to 80° F (15° - 26°C) prior to application. If manufactured sand is to be used with product, it also should be kept at room temperature. Avoid frost-laden surfaces as this may adversely affect bonding and curing. MatchCrete™ Clear will cure tack-free in about 45 minutes. Full cure in 24 hours. The temperature of the material and the temperature of the concrete surfaces will affect cure time. Warmer temperatures will decrease cure time and colder temperatures will increase cure time. In extremely cold environments, heat the concrete to remove frost before application. Contact Roadware for information on applications below 40°F.

Mixing:

Cartridges: Roadware MatchCrete™ is a two-component material that must be thoroughly mixed in a one-to-one ratio immediately before application. This is best achieved with specially designed dual-component self-mixing cartridges and caulking guns. Material is ejected from prepackaged cartridges through a supplied static mixing nozzle with a dual component caulking gun such as the Roadware 5300 Application Tool. Mixed material is applied directly into the repair area immediately after mixing. Static mixing delivers the clearest finish with the fewest trapped air bubbles.

Bulk Mixing:

Due to the rapid setting nature of this product, only small batches up to 500ml x 500ml should be mixed and used immediately. Keep the material cool and blend the material with a paddle. Mix for about one minute or until well blended. Avoid whipping air into the mix. Dry aggregate, sands and pigments can be added at the end of the mixing process. The material may want to gel up instantly, keep mixing until smooth for up to two minutes. If the material is setting too quickly, chill the components to between 40 and 59 degrees and try again.

Pumps:

Roadware MatchCrete™ Clear may be pumped in most one-to-one ratio pumps designed for applying polyureas. The pump should be new or newly cleaned and refurbished to avoid cross color contamination from the previous pumped material.

Application:

Surface Cracks (all depths and widths): Assemble cartridge according to directions. Holding the application gun upward, place cartridge set into gun. Gently squeeze trigger to bleed-off air and start material flowing into mixers. Point mixer into waste container and squeeze trigger to start mixing process. **DO NOT POINT MIXER UPWARD AFTER MATERIAL IS FLOWING.** This may cause material to flow back into the tubes and cause clogging. Apply material directly to the repair area. Add small amounts of manufactured sand to slow, “sinkers” or prevent material from flowing beneath the slab. Colored or decorative sand may be added in ¼” inch (6mm) lifts if necessary.

Spalls: Apply mixed material directly to the repair area and add sand or aggregate to ¼ inch (6mm) lifts as necessary. Be sure aggregate is fully saturated.

Spalls Bulk Mixed: Pre-wet the repair area with MatchCrete™ Clear. Fully coat the sides and bottom of the repair. Pour 500ml or less mixed MatchCrete™ Clear into a mixing pail. Add specified sand or aggregate and stir until coated. Quickly pour the resulting mortar into the repair area and finish with a trowel. Use just enough added materials to give the desired color and texture.

Exposed Aggregate:

For a clear appearance, use cartridge supplied MatchCrete™ Clear and a static mixer.

Method One: Pre-place up to one inch of desired clean, dry aggregate in the repair area. Flood the repair area with MatchCrete™ Clear to bond aggregate in place.

Method Two: Flood prepared spall with MatchCrete™ Clear to just below the finished surface and add desired clean, dry aggregate. Move aggregate in place as necessary with a trowel or similar tool.

Additional techniques can be used to closer match the, “grain” and textures of many types of decorative concrete surfaces. Discuss your application with your Roadware distributor or request technical assistance for specific applications. 1-800-522-7623

Finishing: MatchCrete™ Clear can accommodate many types of finishes and looks.

Broom Finished Concrete: Dust the repair area as the MatchCrete™ Clear gels in approximately 5 minutes and lightly broom finish to match the surrounding concrete.

Polished Concrete: Use matching aggregate and sand in the repair. Fill crack or spall to slightly above grade. Allow to fully cure for 24 hours. Gently wet sand or polish with 400 grit diamond pads until repair blends into the surrounding surface. Proceed with higher grit pads if necessary.

Safety

CAUTION: Read and understand SDS sheets before use.

Roadware MatchCrete™ Clear should be used as directed and mixed at the point of application. Do not spray or atomize material without taking appropriate safety precautions.

Harmful by inhalation. Irritating to eyes and respiratory system. May cause sensitization by inhalation and skin contact. This product is a respiratory irritant and potential respiratory sensitizer. Repeated inhalation of vapor or aerosol at levels above the occupational exposure limit could cause respiratory sensitization. A hyper-reactive response to even minimal concentrations of diisocyanate may develop in sensitized persons. The onset of respiratory symptoms may be delayed for several hours after exposure. Waste disposal must be in accordance with appropriate Federal, State and Local regulations. In liquid form, avoid skin contact, avoid eye contact, avoid breathing substance, avoid ingestion. Use respiratory protection and skin protection if spraying or atomizing this product or using in an enclosed space. Notice to users: Do not release to water or public owned treatment works. Read and understand MSDS sheets before use.

KEEP OUT OF REACH FROM CHILDREN

KEEP CARTRIDGES IN A COOL, DRY PLACE.

STORE AT ROOM TEMPERATURE BETWEEN 60 - 80° F (15° - 26°C).

Availability

Roadware MatchCrete™ Clear is available from authorized Roadware distributors and dealers worldwide. Contact Roadware Incorporated for the nearest distributor or dealer.

Warranty

Roadware Inc. will warrant each Roadware Concrete Repair or Protective Coating Product against defects in material and workmanship for a period not to exceed six months from the shelf-life of each unopened drum or case of product. Roadware's sole warranty is that Roadware Products will meet current sales specifications. Every reasonable precaution is taken in the manufacture of all Roadware products and compilation of data that they shall comply with the manufacturer's exacting standards. As however, the effectiveness of each product depends on the applicators judgment of a proper condition, and since conditions and methods of use are beyond the manufacturer's control, no application warranty of any type is made, expressed or implied whether used in accordance with directions or not. Roadware shall not be held liable for repairs or portions thereof that are necessitated by damage which has resulted from structural failures, settling, shifting, distortions, splitting or cracking of the substrate. The forgoing warranties are in lieu of all other warranties expressed or implied including the implied warranty of merchantability and fitness or application for a particular use. Roadware Inc., shall in no event be liable for incidental, consequential or other, direct or indirect damages.

Maintenance
None Required

Technical Services

Roadware maintains trained distributors and factory representatives on a national level. Contact a local distributor for technical assistance or call Roadware Incorporated for direct factory technical assistance. 800-522-7623

Filing Systems

Additional product information is available from Roadware Incorporated and from Roadware's web site at www.concretemender.com.