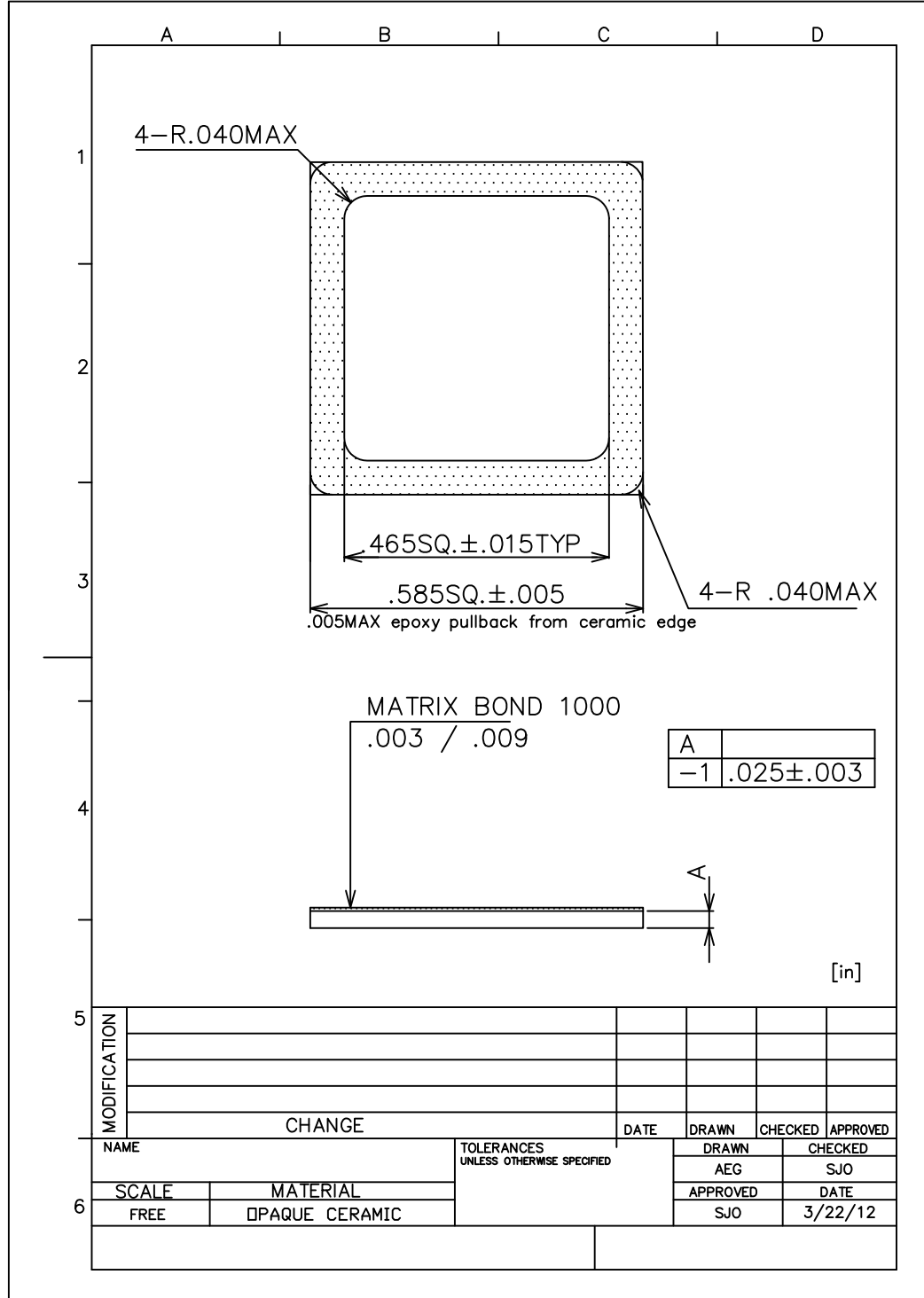


SSM P/N CR-58503



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Product Name: ***MatriX Bond*TM 1000**

Product Description:

MatriX Bond 1000 is a solid latent cure adhesive for ceramics, metals, and may also be used with some plastics with proper surface treatments. It is formulated for oven cure profiles where assemblies see thirty to sixty minute cure times at the recommended cure temperature. Standard colors are available in white, black, and natural (amber).

Product Storage and Handling:

Matrix Bond 1000 comes pre-applied on customer specified or furnished parts. Upon receipt, the parts can be stored at room temperature for up to one year for most applications. Parts may also be stored refrigerated or frozen if desired. Care should be taken to allow any cold storage parts to reach room temperature and be condensation free before opening the package. Care should also be taken not to bump or drop cold parts. This may lead to the adhesive chipping or flaking off the part. Note that MatriX Materials does not warrant against chipped or flaked adhesive on parts that have been frozen or refrigerated.

Product Use:

With a wide variety of materials, shapes, sizes and device environmental requirements, adhesive applications frequently required optimized processing to ensure good seals and yields. The following sealing conditions are recommended as a generic starting point for your process development for your specific application. It is highly recommended that you run an optimization design of experiments for your assembly requirements. MatriX Materials technical service group is ready to help you with your optimization experiments if you require help.

Cure Temp: The recommended cure temperature for this adhesive is 150°-175°C (300°-350°F)

Cure Time: 60 minutes @ 150°C (300°F)
30 minutes @ 175°C (350°F)

Pressure: Pressure will vary widely depending on your application. The recommended starting pressure for this adhesive is ½ Lbs per square inch of bond area.

Ventilation: Use this product with adequate ventilation during cure. Do not get in eyes or on skin. Avoid breathing any vapors. Wash thoroughly with soap and water after handling.
Caution: Epoxy resins may cause eye and skin irritation or allergic dermatitis. (See MSDS Sheet)

Typical Cured Properties:

Shore D Harness @ 25°C (77°F)	83	
Tg (by DSC)	110°C	(230°F)
Shear Modulus @ 25°C (77°F)	607 MPa	(88.1 ksi)

Compressive Properties per ASTM D695

Compressive Strength @ 25°C (77°F)	72.4 MPa	(10,500 psi)
Compressive Modulus @ 25°C (77°F)	2,067 MPa	(300 ksi)

Electrical Properties - tested per ASTM D149, D150:

Dielectric Constant	3.50 @ 1 KHz
Dissipation Factor	0.085 @ 1 KHz
Dielectric Strength	> 280 volts/mil

Typical Use Properties:

Max Spike Temperature (Up to 3 minutes exposure)	290°C (554°F) Note: Some discoloring may occur.
Max long term use temperature	170°C (350°F)
Thermal Cycling (-65°C to 150°C) (Liquid to liquid with 1 minute dwell) Ceramic to Ceramic	> 20 cycles

Disclaimer: The information supplied in this document is for guidance only and should not be construed as a warranty. All implied warranties are expressly disclaimed, including without limitation any warranty of merchantability and fitness for use. All data is subject to change.

Users should review the Materials Safety Data Sheet (MSDS) to determine possible health hazards, appropriate engineering controls and precautions to be observed in using the material.
