GUNTHER MIRROR MASTICS

SPECIFICATION DATA SHEET

1. PRODUCT NAME

Gunther Extra/Build® Mirror Mastic Gunther Ultra/Bond® Mirror Mastic Gunther Premier® Plus Mirror Mastic

2. MANUFACTURER

H.B. Fuller Construction Products Inc I Gunther Mirror Mastics South Bend, IN 46628, U.S.A. 1-800-227-6181 hbfuller.com/gunther

3. PRODUCT DESCRIPTION

Gunther Ultra/Bond[®], Gunther Extra/Build[®], Gunther Premier[®] Plus are high quality adhesives formulated to provide a strong permanent bond between glass and mirrors, (meeting federal specifications), and various substrates. In addition, Gunther Premier[®] Plus can be safely used on acrylic mirror.

Ultra/Bond[®]'s high strength, fast setting formula provides for a build out of 3/4" and can compress to 1/32" for mirror installations requiring close tolerances such as overlays, mirrored furniture and medicine cabinets. Ultra/BondUltra/Bond[®] is ideal for installing vanity mirrors and for assembly lines using pneumatic pumping equipment.

Extra/BuildU[®]'s viscosity provides for a buil-out of $2\frac{1}{2}$ " without sag for custom mirrored walls or vanities where construction is such that there are gaps over $\frac{3}{4}$ " between the mirror and substrate.

Premier[®] Plus is a very versatile product that can be built out to 2" or squeezed down to 1/16". Premier[®] Plus can be used on acrylic mirror and is designed for installations where movement is an issue such as gyms, elevators, and dance studios.

OTHER FEATURES:

 CONVENIENT DRYING Ultra/Bond[®], at 72°F, achieves approximately 30% strength in 24 hours, full cure in 28 days. Extra/Build[®], at 72°F, achieves approximately 20% strength in 48 hours, full cure in 30 days. Premier[®] Plus achieves 30% strength in 24 hours, full cure in 7 days.

Curing time depends on temperature, amount of product used, porosity of substrate, and amount of air reaching product.

 EASY WORKING CONSISTENCY YEAR-ROUND At temperatures ranging from 10°F to 100°F, Ultra/Bond® and Extra/Build® are easy to apply and remain gunnable from the cartridge. Premier® Plus is gunnable from 40°F to 100°F (for best adhesion, the two surfaces must be dry, clean and above 60°F). • DURABLE

Ultra/Bond[®] and Extra/Build[®] have special formulas which prevent chemical breakdown over time. They will not become brittle. Premier[®] Plus remains very flexible enabling it to absorb movement due to expansion and contraction. It will not shrink or become brittle with age.

VERSATILE

Gunther Mirror Mastics will adhere to a wide variety of substrates including drywall, wood, metals, glass, marble and tile (note installation section).

4. LIMITATIONS

Ultra/Bond[®] and Extra/Build[®] are not to be exposed to continous ultra-violet light. Do not use on styrofoam, plastics or acrylic mirror (as noted above Premier[®] Plus is safe for acrylic mirror meeting federal specs). New copper-free, no-lead, low-lead or traditional mirrors that may have changed paint backing need to be tested prior to use of Gunther products.

5. COVERAGE

One 300 ml cartridge with a 3/8" bead coveres 15 lineal feet.

6. CLEAN-UP

Remove excess with mineral spirits. On carpet, let product set for 1/2 hour and gently pull from fibers.

7. STORAGE

Store at less than 85°F. Freezethaw capability - 7 times.

8. WATER RESISTANCE

Waterproof after fully cured.

9. SHELF LIFE

12 months in non-opened containers stored at 75°F or lower.

10. CAUTION

FLAMMABLE - Vapors from **Ultra/Bond®** and **Extra/Build®** may ignite explosively; prevent build-up of vapors. Open all windows and doors. Use only with cross ventilation. Do not smoke. Extinguish all flames and pilot lights and turn off stoves, heaters, electric motors and other sources of ignition during use and until all vapors are gone. Close container after user. Keep away from heat, sparks and open flame.

KEEP OUT OF REACH OF CHILDREN.

11. TECHNICAL DATA

	Ultra/Bond®	Extra/Build [®]	Premier [®] Plus
BASE	Synthetic Rubber	Synthetic Rubber	Urethane
VISCOSITY	600,000 - 700,000 cps	Approximately 1,000,000 cps	Approximately 1,500,000 cps
COLOR	Tan	Black	Gray
APPLICATION	Caulking Gun, Spatula, Power Pump	Caulking Gun, Spatula	Caulking Gun (12:1 ratio suggested)
MOUNTING TIME	SKIN: ~20 seconds RE-WET: upon application MOUNT: 10 minutes	SKIN: ~30 seconds RE-WET: upon application MOUNT: 10 minutes	SKIN: 60 minutes MOUNT: 20 minutes
OPEN TIME	20-30 minutes*	20-30 minutes*	
SOLVENT	toulene, textile spirits, acetone	toulene, heptane, mineral spirits	xylene, MDI (low VOC)
PACKAGING	300 ml cartridge (24/case) 1 GAL can (4/case) 5 GAL pail 50 GAL drum	300 ml cartridge (24/case) 1 GAL can (4/case)	10.3 fl oz cartridge (12/case)

* Depending on temperature and humidity conditions. If product skins in container, the skin can be stirred in and re-wetted.

12. INSTALLATION

Check and prepare substrates, all substrates should be plumb and square. Check for dampness or the possibility of dampness occurring after installation. Check for unsealed surfaces, loose plaster, dust, or poor quality/loose paint. Oil based paints found in older construction can become very brittle in time and cannot be depended upon to support a mirror. Also some lower cost primers dry with a powdery surface which makes adhesion impossible. Sand through to the base surface where the product will be applied. Clean the area and seal with a good quality, environmentally safe, acrylic sealer (Gunther Prime-N-Seal[™]).

Most substrates need to be sealed. Lacquer sealers should not be used. Many lacquer sealers are not effective on drywall or wood.

The strength of the mastic is only as good as the substrate.

13. SUBSTRATES

Concrete, plaster, drywall and sheet rock, hard board, chipboard, green board. All porous substrates such as those listed above should always be sealed. A sealer adds strength to the wall and prevents caustic chemicals from attacking the mirror backing.

CHIPBOARD, OR PARTICLEBOARD: Is produced with wax in the molding process. Because the was is fused to the wood particles, wax will be present on the board surface. Sealers will not adhere to wax. Sand the chipboard or particleboard before applying sealer; green board also must be sealed because it contains chemicals that cause silver deterioration.

TILE, GLASS, MARBLE, STEEL OR OTHER METALS: Sufaces must be clean and dry. Metals must be free of rust, oil or paint. These surfaces do not need to be sealed. With tile, sand and clean for better adhesion. Ultra/Bond[®] is recommended for these substrates.

14. APPLICATION

Ultra/Bond® and Premier® Plus should be applied only in vertical beads the length of the mirror, 5-6" apart. Allow 3" from the mirror edge to begin or end a bead.

Extra/Build[®] is the only mastic that can be applied in 4-5" diameter patties.



Do not apply mastics in a circle where an air pocket could collect solvents and possibly extract material that could be damaging to the mirror. The best way to apply **Extra/Build®** or **Premier® Plus** from a cartridge is to start from the center and let the mastic naturally expand out as it is being gunned.

Mechanical support systems are recommended for all mirror applications. This includes the use of mechanical fasteners at the top and bottom of the mirror.

ACRYLIC MIRROR / PAINTED GLASS:

Do not apply Ultra/Bond[®] or Extra/Build[®] to acrylic mirror or painted glass. **PREMIER[®] PLUS IS RECOMMENDED FOR ACRYLIC MIRROR by the manufacturer.** PREMIER[®] PLUS can also be used on painted glass.

DO NOT APPLY Gunther Mirror Mastics to vinyl backing.

WALLPAPER OR PAINTED SURFACES:

Wallpaper does not make a strong substrate for mirror installations. Remove wallpaper and apply mastic directly to the re-sealed wall. Never install mirrors on new plaster or on a painted wall.

FIRE RETARDANT PLYWOOD AND WOLMANIZED WOOD:

These are not recommended as substrates when using mirror mastic for mirror installations. Chemicals in the wood will cause loss of adhesion over time.

15. SPECIAL APPLICATIONS

CEILING INSTALLATION:

CAUTION SHOULD BE USED IN HORIZONTAL INSTALLATIONS. Glass is a brittle product subject to thermal and seismic shocks, making it difficult to guarantee a permanent ceiling installation. Most organizations responsible for industry installation standards, such as the California Glass Association, do not sanction the practice of mounting mirror on an overhead, horizontal surface.

MIRROR OVERLAYS:

Working with mirror strips can be difficult. For overlays, use Ultra/Bond[®] or Premier[®] Plus to achieve a fast set and strength along with double-faced tape. Ultra/Bond[®] has the capability to compress to 1/32", Premier[®] Plus to 1/16", providing a professional installation. Double-faced tape is used only for initial adhesion to support the mirror. The mastic is for long term adhesion and strength. Mastic beads of 1/4" to 3/8" thick by 6" long, leaving a 3" gap between where the bead starts will improve curing time.

NOTE: Check with mirror manufacturer on recommended double-faced tape.

MIRRORED FURNITURE:

Close tolerances are very important with mirrored furniture. Ultra/Bond[®] will squeeze down to 1/32" allowing for close tolerances and proper fit. As previously mentioned, beads should be used to enhance mastic curing and double-faced tape can be used when necessary to support.

MIRRORED DOORS:

The diagram (at right) shows a secure method of installing mirror on doors. Make sure the door is not treated with a fire retardant. Also, any varnish or finish on the door should be sanded away where the mastic is to adhere. Use Ultra/Bond[®] in beads for best adhesion. Allow extra cure time if applying mastic to non-porous substrates.



16. LIMITED WARRANTY AND REMEDY

Under no circusmtance will H.B. Fuller Construction Products Inc. or Gunther Mirror Mastics, the manufacturer, or the seller of its products be liable for incidental or consequential damages arising from the use of any of its products. Any damages in connection with the use of any of Gunther's products by the buyer, seller, user or any other person are strictly limited to the purchase price of the product only. Customer accepts full responsibility. All installation guidelines must be followed. Refer to literature or call 1-800-227-6181 for installation guidelines.

17. AVAILABILITY

For the name and telephone number of your loca distributor or representative, or for technical assistance, please call:

GUNTHER MIRROR MASTICS 1-800-227-6181

We can also be reached by FAX: 574-246-5416 or visiting **hbfuller.com/gunther**

ISO 9001:2000 CERTIFIED



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