



HELMITIN
QUALITY ADHESIVE SOLUTIONS

HELMITEX 1016TF

TOLUENE-FREE BRUSH/ROLLER CONTACT GRADE CEMENT FOR LEATHER, UPHOLSTERY & TEXTILES

Product Description

HELMITEX 1016TF is a toluene-free brush/roller grade contact cement formulated to provide excellent adhesion to leather and other materials used in footwear and orthotic manufacturing. An excellent choice as well for bonding materials commonly used in the bag, belt, and garment industries.

Benefits

- ✓ Toluene-free - reduced HAPs content lowers emissions
- ✓ Maintains flexibility at very low temperatures
- ✓ High heat, moisture and oil resistance
- ✓ Spreads easily for uniform coverage
- ✓ Fast drying with a long open time
- ✓ Aggressive room temperature contact bond
- ✓ Versatile - bonds leather, canvas, cork, felt, most rubbers, fabrics, synthetics and more.

Suggested Uses

- Contact bonding of materials used in footwear and orthotic manufacturing.
- Combining leather and textiles for belts and bags.
- Neoprene rubber bonding for waders and drysuits.
- Other applications include bonding materials such as cork, leather, canvas, felt, etc. to themselves, metal, wood, some plastics and many other surfaces.

Meets or Exceeds

- **LEED Indoor Environmental Quality Credit 4.4; Low Emitting Materials: Composite Wood and Laminate Adhesives**
 - No added urea-formaldehyde

Physical Properties

Base:	Polychloroprene rubber
Solids Content:	20% - 23%
Viscosity:	950-1250 cP
Specific Gravity:	0.82
Weight/Gal:	6.84 lb
Coverage/Gal:	222 ft ² @ 3.0 dry grams/ft ² ; 111 ft ² completed bond
Open Time:	1 hour
Color:	Light Amber
VHAP:	0.49 lbs/lb of solids
VOC:	5.23 lbs/gal (627 g/L); less water and exempt solvents

Handling & Storage

- 12 month shelf life from date of manufacture.
- Rotate stock to use the oldest material first.
- **Freeze/Thaw Stable**; if chilled below 10°C/50°F – agitate well after first warming to 22°C/72°F.
- Store between 10°C/50°F and 32°C/90°F.
- Keep container tightly closed and stored off of the floor when not in use.
- Avoid exposure of containers to direct sunlight.
- **Do Not** apply or make bonds at temperatures below 18°C/65°F.
- Use at room temperature, 18°C/65°F, or warmer. For best results use above 22°C/72°F..

Packaging

- 53 US Gallon Drums and 5 US Gallon Pails

Clean-Up

- Use HELMITIN SOLVENT 665 or CITRUS CLEANER
- **Never** use lacquer thinner to thin adhesive or clean equipment.

APPLICATION GUIDELINES

Conditioning of Materials

1. Substrates to be bonded with HELMITEX 1016TF must be clean, dry and free from dust, dirt, grease, oils, solvents or any other contaminants.
2. Leathers must be roughed to the corium layer.
3. Rubber should be fresh roughed, and also fabrics, mesh and synthetic materials where possible.
4. Optimum conditions are approximately 22°C/72°F and relative humidity of 40% - 50%. Provisions should be made for the circulation of air around the components.

Adhesive Application

1. Substrates to be bonded should be clean and free from moisture, dirt, oil and other contaminants.
2. The adhesive can be applied with a 2" to 4" wide animal hair or solvent resistant brush, a short nap phenolic roller, notched trowel, or a roll coater.
3. The adhesive should be applied at a coating weight of 3.0 dry grams per ft² and 100% coverage. Proper adhesive coating is indicated by a uniform glossy sheen on the adhesive when it is dry, with light reflecting on it. Any dull areas indicate insufficient adhesive and more adhesive should be applied.
4. When applying contact adhesives to porous materials it is advisable to apply two coats. Apply the first coat and allow to dry fully. It will act as a sealer. When it has dried, apply the second coat and allow it to dry fully before bonding. This helps to ensure that the adhesive does not soak-in and that there is enough on the surface to achieve a strong, permanent bond.
5. Allow the adhesive to dry properly before bonding. To check for dryness, use the back of your fingers and press into the adhesive and lift up. Any adhesive transfer or legginess indicates that the adhesive requires more time to dry. If the adhesive feels tacky, but there is no transfer or legginess, the adhesive is ready for bonding. If there are heavy areas of adhesive present, press your knuckles in the adhesive and twist; if a skin has formed, this will tear it open and allow one to notice that the adhesive requires more dry time. DO NOT use your fingers or the palm of your hand to check for dryness as they can be oily and leave a residue that can interfere with bonding. Dry time varies with temperature, humidity and coat weight. Drying can be assisted by air movement, drying ovens, etc.
6. Bonds can be made as soon as the adhesive is dry. Bonds made any time in the 1 hour open time will be as strong as those made immediately after drying.
7. Position the pieces carefully, as a strong bond is made instantly upon contact.
8. Apply good uniform pressure to ensure good film fusion. A pinch roller is the best method for applying pressure to flat surfaces. Use the maximum possible pressure without damaging the substrates. Minimum recommended pressure is 25 psi. This is easily achieved with a 3" J-roller. Rubber mallets, blocks of wood, and flooring rollers do not apply adequate pressure. When joining small parts by hand for orthotic or footwear assembly, the use of specialized tooling to apply pressure is recommended.

Note

- A drying issue called "**Blushing**" often occurs under extremely humid conditions. "**Blushing**" occurs when rapidly evaporating solvents cause the temperature of the adhesive surface to drop below dew point. Condensation then forms on the surface of the adhesive and acts as a barrier to further drying; it also interferes with the fusion of the two glued surfaces and prevents them from bonding. All moisture must be completely evaporated before bonding. Moderate air movement (shop fan) is the preferred method to speed drying while reducing or eliminating "Blushing" issues. Bonds can be made once all moisture and solvents have completely evaporated.
- A failed contact adhesive bond with a shiny appearance to the surface of the adhesive is an indication that the recommended open time was exceeded and/or that inadequate laminating pressure was applied during assembly.
- **Do Not Exceed the Recommended Open Time! Apply Sufficient Laminating Pressure!**
- **Do Not** use copper or its alloys to transfer or contain any contact adhesive.
- Thinning the adhesive is not recommended.

Warranty

Because Seller has no control over methods of product application or conditions of use, its product is warranted only to be made of standard commercial grade materials and in conformance with Seller's published specifications, if any. Any recommendations for the use of the product are based on tests or experience believed to be reliable and are furnished without compensation, and Seller does not guarantee the applicability or the accuracy of this information or the suitability of its product in any given situation. Buyer must make its own tests to determine the suitability of Seller's product for Buyer's particular use and Buyer assumes all risk and liability of use of Seller's product.

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