



FA-UHB45E Gray Series Product Data Sheet

“Ultra-High Bond” Foamed Acrylic Adhesive

DESCRIPTION

Gray foamed acrylic adhesive tapes with a special composition giving excellent all-around bonding properties and unique characteristics that allows for very high performance in the most demanding of applications. Exhibits good tack, excellent adhesion to variety of surfaces and high shear strength performance. Tape is carried on a RED, easy release, polyethylene liner and wound on a 3” plastic core.

PHYSICAL PROPERTIES | FA-UHB45E

Thickness (excludes liner)	43.3 mil (1.1mm)
90° Peel Adhesion \geq 20 min	251 oz/in
@24 hrs	430 oz/in
@72 hrs	466 oz/in
Dynamic Shear (SST)	121 lbs/in ²
Dynamic Shear (PVC/ABS)	99 lbs/in ²
Tensile Strength	99 lbs/in ²
Elongation	750%
Temperature Resistance	-40°F to 356°F

HOW TO APPLY FOR BEST ADHESION RESULTS

- Surfaces to be bonded must be clean, dry, and free from dust and loose particles. Preferably use a solvent (IPA) to prepare surface.
- Must apply sufficient pressure to tape to ensure adhesive “wet-out”. Bond strength builds over time.
- Low energy surfaces such as plasticized plastics may require a surface primer to ensure strong bond.

NOTE: Unless otherwise noted, the physical properties listed above are typical test results obtained from a series of laboratory tests and should not be used for the purpose of writing specifications. Before using this product, user shall determine the suitability of the product for their use; and users assume all risks and liabilities in connection therewith. All test procedures are in accordance with standard (ASTM, PSTC, AFERA, JIS) test methods. (1902VHTOP01)

APPLICATION PROCEDURE

Substrate Evaluation

Acrylic adhesive is suitable for bonding a variety of substrates, including many plastics, composites, sealed wood and metals. Low energy surface materials such as polyethylene, polypropylene, silicone and Teflon can be a difficult surface in which to bond. Thorough evaluation is recommended when bonding to any questionable surface. An adhesion promoter (primer) for use with pressure sensitive acrylic adhesives may be necessary to facilitate proper bonding and are available.

Preparation of Substrate

The substrate to be bonded should be cleaned with an appropriate solvent; preferably IPA (isopropanol) no more than 15 minutes prior to bonding acrylic adhesive backed part. To ensure removal of all contaminants without leaving any residue use a clean, lint-free wiping cloth or disposable cloth (never recycled rags). Other solvents such as hexane, heptane or methanol may be suitable for cleaning various substrates after thorough evaluation. The substrate must be thoroughly dry through evaluation of the solvent with radiant heat, hot air dryers or with time before bonding acrylic backed parts.

Ensure optimum substrate temperature, never below 60°F (15°C) at application time. Store acrylic adhesive backed parts to be bonded at no less than room temperature to avoid moisture condensation on the acrylic adhesive.

Application of Adhesive Backed Part to the Substrate

Ensure optimum application temperature of 50°F to 100°F (10°C to 38°C).

Remove the protective release liner from the acrylic tape immediately prior to applying the part to be bonded, being careful not to contaminate the acrylic adhesive.

Apply the part to be bonded without entrapping air between the tape and the substrate with a recommended minimum application pressure of 15 psi of tape width to achieve adhesive to substrate contact and maximum bond strength.

Relative Adhesion Guideline for UHB Acrylic Tapes on Various Substrates

Substrate	Relative Adhesion	Primer Usage	Substrate	Relative Adhesion	Primer Usage
Aluminum	Excellent	Not Necessary	Polycarbonate (GE Lexan)	Good	Recommended
Stainless Steel	Excellent	Not Necessary	Polyvinyl Chloride (PVC)	Good	Recommended
Copper	Excellent	Not Necessary	ABS	Good	Recommended
Zinc	Excellent	Not Necessary	Noryl® (GE)	Good	Recommended
Tin	Excellent	Not Necessary	Acrylic	Good	Recommended
Lead	Excellent	Not Necessary	Polyvinyl Acetate (PVA)	Good	Recommended
Anodized Aluminum	Excellent	Not Necessary	Polystyrene	Good	Recommended
Painted Metal	Excellent	Not Necessary	Ethylene Vinyl Acetate (EVA)	Good	Required
Kapton® (DuPont™)	Very Good	May Need Primer	Polyethylene (PE)	Good	Required
Nylon	Very Good	May Need Primer	Polypropylene (PP)	Good	Required
Epoxy Paint	Very Good	May Need Primer	EPDM	Good	Required
Alkyd Enamel	Very Good	May Need Primer	Tedlar® (DuPont™)	Good	Required
Polyester	Very Good	May Need Primer	Silicone	Poor	—
Polychloroprene	Very Good	May Need Primer	Teflon™ (DuPont™)	Poor	—
Polyurethane	Very Good	May Need Primer			