

J.V. Converting Company, Inc.

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PRODUCT DATA SHEET

DC-UHB Series

DOUBLE COATED ULTRA HIGH BOND ACRYLIC TAPES

This structural grade tape is comprised of an integral core of solid acrylic polymer, coated on both sides with a uniform high-tack acrylic adhesive, and white polyethylene release liner. Provides a superior, permanent bond between a wide variety of substrates, including glass, many plastics, composites, sealed wood, painted metals, and unfinished metals. Withstands a wide range of weathering and temperature conditions without losing adhesion. Solid acrylic core gives tape superior strength; it can be easily applied and cleanly cut, yet is flexible, moldable, compressible & conformable to intricate shapes. Tape will bond to most surfaces, but thorough evaluation is recommended when bonding low energy surface materials such as PVC, ABS, PE, PP. Not recommended for bonding Teflon™, Tedlar™, Silicone, or EPDM.

COLOR: TRANSLUCENT

Available in the following thicknesses:

DC-UHB25	25 mils
DC-UHB45	45 mils
DC-UHB60	60 mils
DC-UHB80	80 mils

Features:

- Solid core (superior strength, easily applied & cut)
- Maintains adhesion at sub-zero temperatures
- Non-staining, will not harden/become brittle with aging
- Isolates and dampens vibration and shock
- Flexible, moldable, compressible- conforms to intricate shapes
- Approved to GM specification GM3802M type 14
- Approved to Chrysler specification MS-CH59-C
- Approved to Ford specification WSB-M3G138-B

Applications:

- Solid core is key for structural bonding – replace welding, rivets, bolts, screw, cement/glue
- Primarily used in transportation industries –OEM and aftermarket for automotive, truck, trailer, bus, fire trucks, ambulances
- Signs, graphics, auto trim attachment
- Furniture/appliance manufacturing

Physical Properties:

Backing	Solid Acrylic Polymer
Adhesive	Ultra High Bond Acrylic
Density	62.5 lbs per cu.ft.
Tensile Strength	200 psi
Elongation	500%
Peel Adhesion	240 oz per linear inch
Cleavage Peel Strength	30 psi
Dynamic Shear Strength	90 psi
Application Temperature Range	50°F to 100°F
Constant Temperature Range	-30°F to 200°F

NOTE: 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 his/her use; and user assumes all risks and liabilities in connection therewith. All test procedures used are in accordance with ASTM and PSTC methods.

DC-UHB45 – Typical Thickness Used in Automotive

Certificate of Compliance (Supplied to GM & Chrysler)

Properties	Test Method	Requirement	Test Results
Tensile Strength	ASTM D412	800kPa	1546 kPa
Elongation	ASTMD412	700% Min.	725%
90 Degree Peel to SST	ASTM D3330	80 N/25mm Width Min.	117.6 N/25mm
Static Shear	ASTM D3654 SST; 850 gm load / in ² 150 hours @ 158°F	1.5 mm Maximum slip	0.4mm
Static Shear	ASTM D3654 SST; 1000 gm load / in ² 500 hours @ 73°F	1.5 mm Maximum slip	0.9 mm
Pluck Strength	GM 9758P - Aluminum	35 N/cm ² Minimum	54.6 N/cm ²
Cold Slam	Chrysler LP463TB-01	6 Slams @ -30°C	Pass
Cleavage Peel Strength CONDITIONS	GM 9768P – Aluminum & Vinyl Bar		Pass
- Normal / 72 hr. dwell	Breakaway Continuous	130 N/25mm Width Max. 40 N/25mm Width Min.	238.0 N/25mm 168.8 N/25mm
- Accelerated Age	Breakaway Continuous	130 N/25mm Width Max. 40 N/25mm Width Min.	351.3 N/25mm 206.7 N/25mm
- Kerosene / Water Resistance	Breakaway Continuous	130 N/25mm Width Max. 40 N/25mm Width Min.	223.3 N/25mm 110.9 N/25mm
- Mineral Spirits Resistance	Breakaway Continuous	130 N/25mm Width Max. 40 N/25mm Width Min.	238.4 N/25mm 121.2 N/25mm
- Cycle Test (Wide Range of Cond.)	Breakaway Continuous	130 N/25mm Width Max. 40 N/25mm Width Min.	283.0 N/25mm 157.2 N/25mm
- Humidity Test	Breakaway Continuous	130 N/25mm Width Max. 40 N/25mm Width Min.	204.0 N/25mm 136.4 N/25mm

Relative Adhesion Guideline - Various Substrates

AT/DC/FA-UHB and URA-45 Acrylic Tapes

SUBSTRATE MATERIAL	RELATIVE ADHESION	PRIMER USEAGE?
Aluminum	Excellent	Not Necessary
Stainless Steel	Excellent	Not Necessary
Copper	Excellent	Not Necessary
Zinc	Excellent	Not Necessary
Tin	Excellent	Not Necessary
Lead	Excellent	Not Necessary
Anodized Aluminum	Excellent	Not Necessary
Painted Metal	Excellent	Not Necessary
Kapton (Dupont)	Very Good	May Need Primer
Nylon	Very Good	May Need Primer
Epoxy Paint	Very Good	May Need Primer
Alkyd Enamel	Very Good	May Need Primer
Polyester	Very Good	May Need Primer
Polychloroprene	Very Good	May Need Primer
Polyurethane	Very Good	May Need Primer
Polycarbonate (GE Lexan)	Good	Primer Recommended
Polyvinyl Chloride (PVC)	Good	Primer Recommended
ABS	Good	Primer Recommended
Noryl (GE)	Good	Primer Recommended
Acrylic	Good	Primer Recommended
Polyvinyl Acetate (PVA)	Good	Primer Recommended
Polystyrene	Good	Primer Recommended
Ethylene Vinyl Acetate (EVA)	Good	Primer Required
Polyethylene (PE)	Good	Primer Required
Polypropylene (PP)	Good	Primer Required
EPDM	Good	Primer Required
Tedlar (DuPont)	Good	Primer Required
Silicone	Poor (ATP Butyl Recommended)	---
Teflon (DuPont)	Poor (ATP Butyl Recommended)	---

Application Procedure for AT/DC/FA-UHB & URA Acrylic Tapes

1. 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, silicones 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.

2. 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 of 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.

Insure 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.

3. Application of Adhesive Backed Part to the Substrate

Insure 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 pounds per inch of tape width to achieve adhesive to substrate contact and maximum bond strength.

J.V. Converting Company Warranty

We warrant our products to meet our published physical properties at the time of sale when tested according to our standards. User shall determine the suitability of the product for its intended use and assume all risk and liability. WE SHALL NOT BE LIABLE FOR ANY INJURY, LOSS OR DAMAGE, BEYOND PRODUCT REPLACEMENT DESCRIBED IN THIS LIMITED WARRANTY, AND IN NO EVENT SHALL WE BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

Any and all claims that a product is defective must be made in writing within thirty (30) days after discovery of the defect and in no event more than one (1) year after the original shipment of the product by us. Failure to timely notify us of any claim constitutes an irrevocable waiver of such claim regardless of the circumstances. THIS LIMITED WARRANTY IS THE USER'S SOLE REMEDY AND IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

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