



H.B. Fuller



ROYAL
ADHESIVES & SEALANTS



DC – 13431

TECHNICAL SALES BULLETIN

Hydra FAST-EN® DC-13431 Sprayable Water-Based Adhesive with High Flame Retardancy for Foam Fabrication

DESCRIPTION

Hydra FAST-EN™ DC-13431 is a sprayable and coatable water-based adhesive for use in foam fabrication. Its primary use is to bond open cell polyurethane foam to itself. The adhesive can be used in a 2-part spray operation or as a wet laminating 1-part spray or coating adhesive. The 2-part operation requires DC-12239 part B and gives good immediate bond strength and does not require oven drying. **DC-13431** when used in a wet laminating process does require sufficient drying to convert adhesive from the liquid to the solid phase. The bonding surfaces should be held in contact during the drying operation. Drying conditions vary according to wet laydown, porosity of materials being bonded, and process drying conditions.

DC-13431 can provide substantial bondline flame retardancy to the materials bonded. Laydown required is dependent upon the flame retardancy of the materials bonded and final product F/R requirements. This must be determined by the end user. Higher laydowns will provide increased F/R performance.

PRODUCT FEATURES

- **Water-based** -- No VOC's, low toxicity, easy clean-up.
- **High solids** – 51%
- **Quick Bonding** -- Immediate for 2-part process; Quick converting in 1-part applications

- **High F/R level** -- Bondlines provide substantial flame retardancy to assembled parts.
- **Soft Seams** -- Bondlines remain soft and resist dimpling.
- **Color tint available** -- Aids in noting coverage and uniformity: Standard color is white.
- **Environmentally Friendly** -- Neither wet nor dry adhesive is considered a RCRA hazardous waste
- **Equipment friendly** – Can be sprayed or coated
- **Temperature range** – The applied adhesive when dry has a use range of -40 to 180°F (under normal conditions).
- **Shelf life** -- Material must be stored between 40°F and 80°F in unopened containers. Use on first in/first out basis.
 - Part A: 12 weeks
 - Part B: 1 year

DC-13431 when used as a 1-part must be wet mated with surfaces held together until fully dried. Oven temperatures and air velocity, porosity of substrates and adhesive laydowns will determine required times to achieve full dry. Dried parts can be handled immediately.

Royal Adhesives & Sealants, LLC an H.B. Fuller Company • 2001 W. Washington Street, South Bend, IN 46628 • Phone: 800-999-GLUE • Fax: 574-246-5425

This product is warranted to the original purchaser to meet published specifications, if any, and, in the absence of published specifications, to be merchantable quality. Such warranty may not be assigned or otherwise transferred by purchaser. No other warranty, expressed or implied, of fitness for a particular purpose or any other thing is made. Purchaser's exclusive remedy for breach of this warranty shall be a refund of the price paid for the products by the purchaser. Except as stated above, Royal Adhesives & Sealants, LLC, shall not be liable for any defect in, or breach of obligation relating to the defects in these products, regardless of the theory that may be asserted, including, without limitation, negligence, contract, absolute liability in tort or misrepresentation. If the purchaser does not accept goods on these terms, they are to be returned at once, unopened.

DC-13431 (as 1-part)

Base	Polychloroprene
Color	Off-white to light tan
Solvent	Water
Solids	51.2%
Viscosity*	1500 cps (#2 @ 10 rpm)
Weight/Gallon	9.89 lbs.
Specific Gravity	1.19
pH	11.5

*Viscosity increases slowly over time

DC-12239 Part B (when used as a 2-part)

Base	Zinc Sulfate
Color	Clear
Solvent	Water
Solids	15 %
Viscosity	Water thin
Weight/Gallon	9.3 lbs.
Specific Gravity	1.115
pH	3.5

BONDING CAPABILITIES

Hydra FAST-EN™ DC-13431 can be color tinted to aid the operator in the correct amount to be applied. Custom colors are available at no extra charge. The color tint also aids the operator in determining if uniform coverage is being achieved. For urethane foam recommended laydown is around 10 grams wet / ft². Actual laydown should be adjusted to reflect desired adhesion and flame retardancy levels.

DC-13431 when used in a 2-part scenario requires the use of DC-12239 as an activator (Part B). A 2-part spray gun is required. Part B flow rate should be adjusted to guarantee full conversion of Part A to a solid adhesive film. The following are recommended approximate mix ratios:

By Volume or Weight

DC-13431 Part A	100
DC-12239 Part B	10 – 20

These parameters are adjusted by air pressure settings to achieve the effect desired. The air supply used must be consistent (no wide fluctuation in line pressures) and be oil free to achieve the best results. Atomizing air pressures can be adjusted over a wide range to meet specific requirements.

Sprayed parts in a 2-part scenario can be mated immediately. Ample mating pressure should be applied to assure uniform contact. Mated parts can be handled immediately.

EQUIPMENT CONSIDERATIONS

Contact your Royal Adhesives sales representative for equipment and total system set up recommendations.

EASY CLEAN-UP

Clean up is easily accomplished using a commercially available liquid detergent (Pinesol) in a 5 -10% water solution. Tap water alone is not recommended for clean up.

PRECAUTIONARY DATA

- This product is nonflammable when wet
- For professional or industrial use only
- Use with adequate ventilation
- Read the container label and the Material Safety DataSheet carefully before use
- Keep away from children
- Keep container closed when not in use
- Protect from freezing

DISPOSAL INFORMATION

Do not reuse container or remove label. Safely dispose of container and contents in accordance with applicable Federal, State and Local regulations.