ISO 9001:2000 6/1/05

TECHNICAL SALES BULLETIN

Hydra FAST-EN®

DC-13239

2- Part Sprayable Water-Based Adhesive for the Marine Industry

DESCRIPTION

***Hydra FAST-EN*™ DC-13239** is a water-borne two part sprayable adhesive designed to bond various substrates found in the marine industry. These include open cell urethane foams, foam-backed headliners, marine carpet, fiberglass (bare & gel coated), treated wood, aluminum, and various fabrics and plastics. The system is user-friendly and addresses many of the common problems encountered with other two part systems. Other applications where the use of solvent based, flammable and non-flammable systems are a concern for either health or environmental reasons may also be suitable candidates for the use of this product.

PRODUCT FEATURES

- Water-borne -- Low toxicity, easy clean up
- High solids -- 55%
- Two-part -- Ratio not critical to end performance
- Fast tack -- Parts can be mated 5 seconds after spraying
- Delayed mating -- If desired, parts can be mated as long as 10 minutes after spraying
- Color tint available -- Aids in noting coverage and uniformity. Standard color is white
- Equipment friendly -- 2 parts are mixed external to the spray gun
- Shear stability -- Part A and Part B are not affected by normal shear forces generated by mechanical pumps or mixers
- Temperature range -- The mixed adhesive when dry has a use range of -40 to 200°F
- Shelf life -- When stored between 40°F and 80°F in unopened containers:

  Part A 6 months
  Part B 12 months

TYPICAL PROPERTIES

(Specification values available upon request)

DC-13239 Part A :

Base	Polychloroprene
Color	White when wet (unless tinted)
Solvent	Water
Solids	55%
Viscosity	<100 cps (#2 @ 10 rpm)
Weight/Gallon	9.15 lbs.
Specific Gravity	1.10
pH	12.0
VOC-calculated	0.46 g/l (0.00077 lbs/lb solid)
HAP's	None

DC-12239 Part B :

Base	Zinc Sulfate
Color	Clear
Solvent	Water
Solids	15.0 %
Viscosity	Water thin
Weight/Gallon	8.80 lbs.
Specific Gravity	1.115
pH	3.5
VOC/HAP's	None

BONDING CAPABILITIES

***Hydra FAST-EN*™ DC-13239** will allow sprayed parts to be bonded within seconds after application of the adhesive to both mating surfaces.

Parts can be handled immediately after mating. If bonding to open cell urethane foams, foam tears can result within minutes. Maximum strength is developed within 24 hours. It is within the 24 hour period that the residual water is dissipated. Full water resistance is developed in 3 to 7 days, depending upon ambient conditions.

If repositioning is desired because of misalignment, parts can be realigned prior to pressure mating of surfaces. If pressure mated, respraying of parts is acceptable.

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This product is warranted to the original purchaser to meet published specifications, it 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.

COVERAGE

***Hydra FAST-EN*™ DC-13239** can be color tinted to aid in the determination by the operator of the correct amount to be applied. Custom colors are available at no extra charge. The coverage rate needed to achieve the desired level of adhesion will need to be established for each particular application. This rate will depend on the substrate's surface texture and bonding properties. In the case of open cell urethane foams, average laydown to achieve immediate hold will depend upon properties such as density and compression.

The approximate single surface coverage of one gallon of Part A with the correct ratio of Part B when applied to open cell urethane foams is:

LAYDOWN	Grams Wet per Sq. Ft.	Approx. Sq. Ft. Coverage per Gallon
Low	8.3	630
Normal	10.4	500
High	12.5	420

Once the coverage rates have been determined, color standards can be established and samples supplied to operators which indicate the desired shade of color (i.e., blue) to be applied to the part. The color tint also aids the operator in determining if even coverage is being achieved.

***Hydra FAST-EN*™ DC-13239** (Part A) requires the use of DC-12239 as an activator (Part B). 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-13239 Part A	100
DC-12239 Part B	10 - 20

These parameters are adjusted by air pressure settings to the required levels 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 using this system. Atomizing air pressures can be adjusted over a wide range to meet specific requirements.

EQUIPMENT CONSIDERATIONS

***Hydra FAST-EN*™ DC-13239** is compatible with several different external mix spray gun systems, some of which are available directly from H.B. Fuller. These systems are designed to deliver Part A and B materials to the spray head via air pressure. Each part has its own pressure setting. Part B is delivered to the spray head and introduced to Part A external to the spray head, which minimizes spray head clogging problems. Contact your Royal Adhesives sales representative for spray gun and total system set up recommendations.

EASY CLEAN-UP

Since the mixed Part A and Part B are not in contact internal to the spray equipment, it is not necessary to clean the gun often. If the gun is to be used again within 16 to 24 hours, the gun can be left as is (with system pressurized) without any problems. It is recommended that the gun be cleaned every 5 days, or if it is not going to be used within 48 hours (i.e. over weekend).

Clean up is easily accomplished using commercially available liquid detergent in a 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 Data Sheet carefully before use
- Keep away from children
- Keep container closed when not in use
- Keep 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.