

# HumiSeal® 1R32A-2D Acrylic Conformal Coating

## Technical Data Sheet

HumiSeal® 1R32A-2D is a single component, fast drying, acrylic conformal coating intended for use on printed circuit assemblies. HumiSeal® 1R32A-2D demonstrates excellent flexibility and electrical properties, fluoresce under UV light for ease of inspection and are easily repairable.

HumiSeal® 1R32A-2D has been formulated to improve application properties, with reduced bubbles, when applied with the film coater selective coating equipment.

HumiSeal 1R32A-2D is formulated with the same base acrylic resin as HumiSeal® 1R32A-2 and retains the same performance advantages. After complete cure, the properties of HumiSeal® 1R32A-2 and 1R32A-2D are comparable.

HumiSeal 1R32A-2D coating is IPC-CC-830 and RoHS Directive 2011/65/EU compliant and recognized under UL File Number E105698.

### Properties of HumiSeal® 1R32A-2D

Density, per ASTM D1475	0.92 ± 0.02 g/cm <sup>3</sup>
Solids Content, % by weight per Fed-Std-141, Meth. 4044	29.5 ± 2 %
VOC	661 grams/litre
Drying Time to Handle per Fed-Std-141, Meth. 4061	≤ 30 minutes
Recommended Coating Thickness	25 - 75 microns
Recommended Curing Conditions	24 hrs @ RT or 2 hrs @ 76°C
Time Required to Reach Optimum Properties	7 days
Recommended Thinners	HumiSeal® Thinner 73/600/605
Recommended Strippers	HumiSeal® Stripper 1080/1080A/1080EU
Shelf Life at Room Temperature, DOM	24 months
Flammability, per UL 94	V-0
Dielectric Withstand Voltage, per MIL-I-46058C	>1500 volts
Dielectric Breakdown Voltage, per ASTM D149	>5000 volts

### Properties specific to HumiSeal® 1R32A-2D Pre-Blends

Product	Viscosity, CPS	Solids Content, %	Density, g/cm <sup>3</sup>	VOC g/L	Shelf Life
1R32A-2 D 600 PB65	60-70	21.5 ± 1.5%	0.92 ± 0.02	726.8	12 months

### Application of HumiSeal® 1R32A-2D

Conformal coatings can be successfully applied to boards that have been cleaned prior to coating and also to boards assembled using low residue “no clean” assembly materials. Users should perform adequate testing to confirm compatibility between the conformal coating and their particular assembly materials, process conditions and cleanliness level. Please contact HumiSeal for additional information.

HumiSeal® 1R32A-2D Pre-Blends are specifically diluted to a viscosity for immediate use. No additional dilution is required. Customers should establish which Pre-Blend is suitable for their equipment and application method before commercial use. HumiSeal® Technical Support should be contacted if any further advice on Pre-Blends and equipment is required.

## HumiSeal® 1R32A-2D Technical Data Sheet

### Dipping

A controlled rate of immersion and withdrawal (5-15 cm/min) will further ensure even deposition of the coating and ultimately a uniform film. During the application, evaporation of solvent causes an increase in viscosity that should be adjusted by adding small amounts of HumiSeal® Thinner 73. Viscosity in the dip tank should be checked regularly, using a simple measuring device such as a Zahn or Ford viscosity cup.

### Spraying

HumiSeal® 1R32A-2D Pre-Blends are available which can be sprayed using conventional spraying equipment. Spraying should be done in an environment with adequate ventilation so that the vapour and mist are carried away from the operator. The specific Pre-Blend and spray pressure will depend on the specific type of spray equipment used and operator technique.

### Brushing

HumiSeal® 1R32A-2D Pre-Blends are available which may be brushed onto surfaces. Uniformity of the film depends on specific pre-blend chosen and operator's technique.

### Storage

HumiSeal® 1R32A-2D and Pre-Blends should be stored away from excessive heat or cold, in tightly closed containers. HumiSeal® products may be stored at temperatures of 0 to 35°C. Prior to use, allow the product to equilibrate for 24 hours at a room temperature of 18 to 32°C.

### Caution

Application of HumiSeal® Conformal Coatings should be carried out in accordance with local and National Health and Safety regulations.

The solvents in HumiSeal® Conformal Coatings are flammable. Material should not be used in presence of open flame or sparks. Use only in well-ventilated areas to avoid inhalation of vapours or spray. Avoid contact with skin and eyes.

Consult SDS prior to use.

## Contact HumiSeal®

### HumiSeal North America

201 Zeta Drive  
Pittsburgh, PA 15238  
USA  
Tel: +1 412-828-1500  
Toll Free (US only): 866-828-5470  
[sales@humiseal.com](mailto:sales@humiseal.com)

### HumiSeal Technical Center

295 University Avenue  
Westwood, MA 02090  
USA  
Tel: +1 781-332-0734  
Fax: +1 781-332-0703  
[techsupport@humiseal.com](mailto:techsupport@humiseal.com)

### HumiSeal Europe

505 Eskdale Road, IQ Winnersh  
Berkshire RG41 5TU  
UK  
Tel: +44 (0)1189 442 333  
Fax: +44 (0)1189 335 799  
[europesales@chasecorp.com](mailto:europesales@chasecorp.com)

### HumiSeal India

J-154, M.I.D.C Bhosari  
Pune 411 026  
Maharashtra  
India  
Tel: +91 20 66308098  
[indiatechsupport@chasecorp.com](mailto:indiatechsupport@chasecorp.com)

### HumiSeal S.A.R.L

4/6 Avenue Eiffel  
78420 Carrieres-Sur-Seine  
France  
Tel: +33 (0) 1 30 09 86 86  
Fax: +33 (0) 1 30 09 86 87  
[humiseal.sarl@chasecorp.com](mailto:humiseal.sarl@chasecorp.com)

### HumiSeal Asian Support

Tel: 852-9451-6434  
Fax: 852-2413-6289  
[asiatechsupport@humiseal.com](mailto:asiatechsupport@humiseal.com)

### HumiSeal Europe Support

Tel: +44 (0)1189 442 333  
Fax: +44 (0)1189 335 799  
[europetechsupport@chasecorp.com](mailto:europetechsupport@chasecorp.com)

The information contained here is provided for product selection purposes only and is not to be considered specification or performance data. Under no circumstance will the seller be liable for any loss, damage, expense or incidental or consequential damage of any kind arising in connection with the use or inability to use its product. Specific conditions of sale and Chase's limited warranty are set out in detail in Chase Corporation Terms and Conditions of Sale. Those Terms and Conditions are the only source that contain Chase's limited warranty and other terms and conditions.