#### **PRODUCT GUIDE**

What's inside the machine?



## **Green Technology**



Forward Thinking Solutions

# **HumiSeal**®

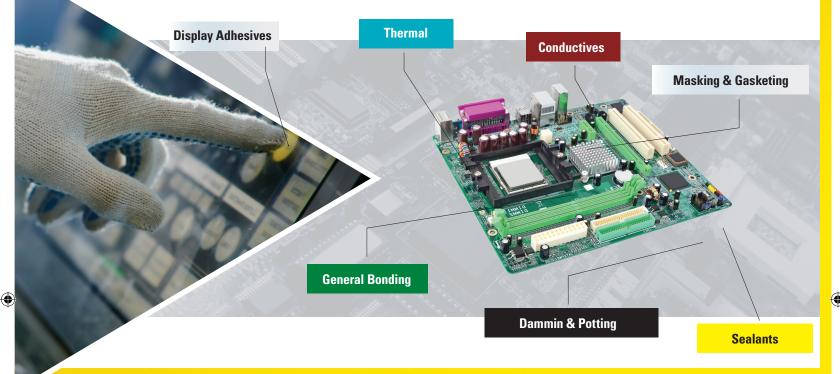


### Green Technology A complete Solution



Whether you are an environmentalist, an economist or simply a pragmatist at heart, there can be no arguing that it makes the utmost sense to utilize naturally occurring resources whenever possible – this has been the story of the evolution of man. Even the historical use of fossil fuels and nuclear reactions to derive the majority of our energy demands, could be said to be making use of natural resources.

For details on our comprehensive range of conformal coatings please refer to the dedicated selector guide



#### **DISPLAY ADHESIVES**

| Product | Description  | Cure    | Durometer | Viscosity         | Index of Refraction |
|---------|--|---------|-----------|-------------------|---------------------|
| LOCA51  | High strength adhesive optically clear adhesive designed specifically to ruggedise displays. Low shrinkage and ultra-low mura.           | UV cure | A25       | 2,000-3,500       | 1.44                |
| LOCA52  | Low viscosity and low shrinkage optically clear adhesive for thin application.   | UV cure | A40       | 500-1000          |                     |
| LOCA53  | Fire retardant optically clear adhesive with low modulus for high reliability applications such as aviation. Low shrinkage for low mura. | UV cure | A28       | 4,000-5,000       | 1.48                |
| LOCA59  | Thixotropic optically clear adhesive paste for edge and damming applications   | UV Cure | A45       | Thixotropic Paste |                     |

#### **THERMAL MANAGEMENT**

| Product | Description   | OPR Temp<br>(°C) | Gel Time<br>(min) | Cure<br>Schedule           | Durometer | Viscosity<br>PT A    | Viscosity<br>PT B | Thermal<br>Conductivity |
|---------|---|------------------|-------------------|----------------------------|-----------|----------------------|-------------------|-------------------------|
| 2E40T-U | 2 part thixotropic epoxy with thermal conductivity used in staking and securing of components. Very high bond strength to various surfaces. | -20 to 150       | 180               | @25C 8hrs                  |           | 79,000 to<br>295,000 | 60 to 150         | 1.02 W/mK               |
| 2C41T-G | 2 part fast setting silicone thermal material designed for thermally demanding applications.  | -65 to 200       | 10                | @25C: 2hrs;<br>@125C: 5min | 39-43     | 10,000-35,000        | 10,000-35,000     | 3.8 W/mK                |
| PSP43   | Pre-cured silicone pads designed for thermal management of flat surfaces  | -65 to 200       | Pre-cured<br>Gel  |                            | A50       |                      |                   | 3.5 W/mK                |

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 poly source that contain Chase's limited warranty are performed.

#### DAMMING & POTTING

| Product | Description   | OPR Temp<br>(°C) | Gel Time<br>(min) | Cure<br>Schedule                         | Durometer     | Viscosity PT A | Viscosity PT B |
|---------|---|------------------|-------------------|--|---------------|----------------|----------------|
| 2E11-Y  | 2 part clear, epoxy potting material with variable hardness based on mix ratio. The non-corrosive nature, excellent bonding strength to multiple materials, and very good electrical properties are ideal for tough applications. | -40 to 155       | 60                | 12-24hrs @RT;<br>2hrs @70C;<br>1hr @100C | D64, D72, D80 | 10,000-12,000  | 14,000-16,000  |
| 2A10    | 2 part clear urethane potting material designed for light sensitive applications (LED, PV, etc). It is a UV stable, non yellowing, hard coat with low shrinkage that can withstand environmental conditions or high temperatures. | -50 to 110       | 3                 | 3hrs @RT                                 | D75           | 600-950        | 520-700        |
| 2E10-B  | 2 part black epoxy potting material. Specifically designed for industrial applications with adhesion to multiple surfaces. Dispenses easily with 60 min pot life.   | -20 to 150       | 60                | 24hrs @25C                               | D85           | 5,200-7,200    | 12,000-14,000  |
| 2A11    | 2 part clear urethane soft sealant, FIP Gasketing material, and an encapsulant.<br>Adhesion to various substrates makes it ideal for harsh environments and high<br>vibration requirements.                                       | -60 to 120       | 5-8               | 24hrs @25C                               | A53           | 11,000-15,000  | 2,000-3,000    |

#### ADHESIVES

| Product | Description   | OPR Temp<br>(°C) | Gel Time<br>(min) | Cure<br>Schedule                            | Durometer | Viscosity PT A | Viscosity PT B |
|---------|---|------------------|-------------------|---|-----------|----------------|----------------|
| 2E20    | 2 part fast setting bonding epoxy. Resistant to chemical/solvent attack and will adhere to wide variety of materials.   | -60 to 125       | 5                 | 1-6hrs @35C                                 | D80       | 12,000-15,000  | 11,000-15,000  |
| 2A20    | 2 part urethane adhesive which upon cure retains very good flexibility. Quick setting will have moisture resistance, very low odor and can be used in an autoclave.   | -50 to 100       | 8-10              | 12-24hrs @25C;<br>30-45min @65C             | D45       | 7,000-11,000   | 1,000-2,000    |
| 2E22    | 2 part tough and fast setting bonding epoxy. Low odour with high resistant to chemical/solvent attack. Has very high peel strength.   | -60 to 125       | 5                 | 12hrs @RT                                   | D74       | 30,000-100,000 | 3,000-4,000    |
| 2A23-G  | 2 part thixotropic urethane designed for staking and securing various components. Capable of withstanding low operating temperatures with excellent electrical insulating properties.   | -50 to 120       | 3                 | 10 min @RT                                  | A90       | 1,000-1,300    | 6,000-9,500    |
| 2E24-W  | 2 part epoxy with high sheer strength for the use in mechanically destructive applications such as high vibration and shock. Easily dispensed with medium working life. Has excellent insulative properties with very good adhesion to metals and plastics  | -10 to 140       | 20                | 24hrs @25C;<br>1.5hrs @65C;<br>0.5hrs @100C | D80       | 172000         | 13050          |
| UV20Gel | 100% UV curable single component non-sagging gel with low viscosity during flow. Easy application with material easily flow property during application and thixotropic immediately post application. Excellent bonder for various materials with high flexibility for mechanically destructive environments. | -50 to 120       | UV Cure           |   |           | Thixotropic    |                |
| UV21Gel | 100% UV curable single component clear material designed for sealing components. Material applies easily, has very good surface wetting properties and becomes a strong adhesive upon cure.   | -50 to 120       | UV Cure           |   |           | 170-200        |                |
| 1E31    | One part fast heat cure, solder replacement conductive epoxy. This product is very simple to use and it features excellent electrical conductivity, high temperature and high resistance chemical attack.   | -20 to 150       |                   | 2hrs @120C                                  | D80       | Thixotropic    |                |
| 2E31    | General purpose two part conductive epoxy with room or elevated temperature cure. Meets NASA out-gassing spec. Ability to bond and seal multiple substrates while creating strong durable bond between dissimilar materials.  | -60 to 125       |                   | 24hrs @RT;<br>1hr @100C                     | D85       | 650            | 700            |
| 2E33    | Extremely flexible two part conductive epoxy with a simple 1:1 mix ratio. This product features very good low temperature performance, is easily dispensed manually or for automation.  | -50 to 155       |                   | 24hrs @RT;<br>1hr @ 110C                    | D40       | Thixotropic    | Thixotropic    |

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#### GASKETING

| Product | Description  | Chemistry | Colour | Durometer |
|---------|--|-----------|--------|-----------|
| SG64    | Preformed fully cured silicone soft gel with self healing properties for low insertion force. Excellent for connector sealing. The grommet forms an instant environmental barrier in both hot and cold temperatures. A rapid seal is created without the delay of lengthy cure cycles. | Silicone  | Blue   | 00 50     |
| SG66    | Protection for multiway connectors and cable entries for sealing and corrosion protection. Automated assembly capable. Preformed fully cured silicone firm gel with self healing properties. Acceptable usage in all temperature environments.   | Silicone  | Blue   | 00 60     |

#### **MASKING MATERIALS**

| Product | Description  | OPR Temp<br>(°C) | Cure    | Durometer | Viscosity      |
|---------|--|------------------|---------|-----------|----------------|
| UV91    | 100% UV curable low viscosity masking material. Easy application for complex surfaces and cures with effortless UV cure. Simple removal.                               | -50 to 150       | UV cure | A45       | 13,000-24,000  |
| UV92    | 100% UV curable non-sag material for masking and damming applications. Wide range application methods and compatible with HumiSeal conformal coatings. Simple removal. | -50 to 150       | UV cure | A43       | 30,000-150,000 |
| UV93    | 100% UV curable low sag masking material. Soft after cure. Easily removable.   | -50 to 100       | UV cure | A43       | Low Sag Paste  |

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# What's inside the machine?

HUMISEAL®, THE WORLD'S LEADING FORMULATOR OF PROTECTIVE COATINGS FOR ELECTRONIC CIRCUITS













