## Ad-Tech Epoxy EC-423-2 (Medium)

Epoxy; Epoxide

Ad-Tech Plastic Systems Corp.

## Message:

Ad-Tech Epoxy EC-423-2 (Medium) is an Epoxy; Epoxide (Epoxy) product filled with aluminum. It can be processed by casting and is available in North America. Typical application: Tools. Primary characteristic: heat resistant.

| Filter / Reinforcement   | General Information          |                            |          |             |
|--|------------------------------|----------------------------|----------|-------------|
| Uses         Molds/Dies/Tools           Appearance         Black           Forms         Pellets           Processing Method         Casting           Physical         Nominal Value         Unit         Test Method           Apparent Density         1.57         g/cm²         ASTM D1895           Molding Shrinkage - Flow         0.20         %         ASTM D295           Methoding Shrinkage - Flow         0.20         %         ASTM D240           Molding Shrinkage - Flow         0.20         %         ASTM D695           Methods         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90         Life Method         Center Method           Mechanical         Nominal Value         Unit         Test Method           Testile Modulus         8270         MPa         ASTM D638           Flexural Modulus         5310         MPa         ASTM D638           Flexural Modulus         5310         MPa         ASTM D695           Thermal         Nominal Value         Unit         Test Method           Glass Transition Temperature         65.6         "C         ASTM D696           Thermoset         Nominal Value         Unit   | Filler / Reinforcement       | Aluminum                   |          |             |
| Appearance         Black           Forms         Pellets           Processing Method         Casting           Physical         Nominal Value         Unit         Test Method           Apparent Density         1.57         g/cm³         ASTM D1895           Molding Shrinkage - Flow         0.20         %         ASTM D295           Hardness         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90         Test Method           Mechanical         Nominal Value         Unit         Test Method           Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8270         MPa         ASTM D638           Tensile Elongation (Yield)         0.60         %         ASTM D638           Tensile Elongation (Yield)         0.60         %         ASTM D638           Flexural Modulus         5310         MPa         ASTM D698           Thermal         Nominal Value         Unit         Test Method           Glass Transition Temperature         65.6         "C         ASTM D696           Thermoset         Nominal Value         Unit         Test Method           LITE - Flow         3.   | Features                     | Good Heat Aging Resistance |          |             |
| Pellets  | Uses                         | Molds/Dies/Tools           |          |             |
| Processing Method         Castring           Physical         Nominal Value         Unit         Test Method           Apparent Density         1.57         g/cm²         ASTM D1895           Molding Shrinkage - Flow         0.20         %         ASTM D955           Hardness         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90  | Appearance                   | Black                      |          |             |
| Physical         Nominal Value         Unit         Test Method           Apparent Density         1.57         9/cm²         ASTM D1895           Molding Shrinkage - Flow         0.20         %         ASTM D955           Hardness         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90   | Forms                        | Pellets                    |          |             |
| Apparent Density         1.57         g/cm³         ASTM D1895           Molding Shrinkage - Flow         0.20         %         ASTM D955           Hardness         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90   | Processing Method            | Casting                    |          |             |
| Molding Shrinkage - Flow         0.20         %         ASTM D955           Hardness         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90  | Physical                     | Nominal Value              | Unit     | Test Method |
| Hardness         Nominal Value         Unit         Test Method           Durometer Hardness (Shore D)         90  | Apparent Density             | 1.57                       | g/cm³    | ASTM D1895  |
| Mechanical Mechanical Mominal Value Mechanical Tensile Modulus 8270 MPa ASTM D638 Tensile Strength (Break) 45.3 MPa ASTM D638 Tensile Elongation (Yield) 0.60 % ASTM D638 Flexural Modulus 5310 MPa ASTM D790 Compressive Strength 114 MPa ASTM D695 Thermal Nominal Value Unit Test Method Glass Transition Temperature 65.6 °C ASTM E1356 CLTE - Flow 3.0E-5 CLTE - Flow 3.0E-5 Thermoset Mix Ratio by Volume: 1.0  Mix Ratio by Volume: 1.0  Mix Ratio by Weight: 100  Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130  MPa ASTM D638 ASTM D638 ASTM D696 ASTM D696 ASTM D696 ASTM E1356 CLTE - Flow ASTM D696 Thermoset Mix Ratio by Volume: 4.0  Mix Ratio by Volume: 4.0   | Molding Shrinkage - Flow     | 0.20                       | %        | ASTM D955   |
| Mechanical         Nominal Value         Unit         Test Method           Tensile Modulus         8270         MPa         ASTM D638           Tensile Strength (Break)         45.3         MPa         ASTM D638           Tensile Elongation (Yield)         0.60         %         ASTM D638           Flexural Modulus         5310         MPa         ASTM D790           Compressive Strength         114         MPa         ASTM D695           Thermal         Nominal Value         Unit         Test Method           Glass Transition Temperature         65.6         °C         ASTM D696           Thermoset         Nominal Value         Unit         Test Method           Thermoset Components         Wix Ratio by Volume: 1.0         Wix Ratio by Weight: 15           Hardener         Mix Ratio by Weight: 15         Wix Ratio by Weight: 100           Resin         Mix Ratio by Volume: 4.0         min  | Hardness                     | Nominal Value              | Unit     | Test Method |
| Tensile Modulus 8270 MPa ASTM D638 Tensile Strength (Break) 45.3 MPa ASTM D638 Tensile Elongation (Yield) 0.60 % ASTM D638 Flexural Modulus 5310 MPa ASTM D790 Compressive Strength 114 MPa ASTM D695 Thermal Nominal Value Unit Test Method Glass Transition Temperature 65.6 °C ASTM E1356 CLTE - Flow 3.0E-5 cm/cm/°C ASTM D696 Thermoset Nominal Value Unit Test Method Thermoset Components  Mix Ratio by Volume: 1.0  Mix Ratio by Volume: 1.0  Mix Ratio by Weight: 15  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min   | Durometer Hardness (Shore D) | 90                         |          | ASTM D2240  |
| Tensile Strength (Break) 45.3 MPa ASTM D638  Tensile Elongation (Yield) 0.60 % ASTM D638  Flexural Modulus 5310 MPa ASTM D790  Compressive Strength 114 MPa ASTM D695  Thermal Nominal Value Unit Test Method  Glass Transition Temperature 65.6 °C ASTM E1356  CLTE - Flow 3.0E - Cm/cm/°C ASTM D696  Thermoset Nominal Value Unit Test Method  Thermoset Components Mix Ratio by Volume: 1.0  Hardener Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min  | Mechanical                   | Nominal Value              | Unit     | Test Method |
| Tensile Elongation (Yield)  5310  MPa  ASTM D638  Flexural Modulus  5310  MPa  ASTM D790  Compressive Strength  114  MPa  ASTM D695  Thermal  Nominal Value  Unit  Test Method  ASTM E1356  CLTE - Flow  3.0E - 5  cm/cm/°C  ASTM E1356  CLTE - Flow  Nominal Value  Unit  Test Method  Thermoset  Nominal Value  Unit  Test Method  Test Method  Thermoset  Hardener  Mix Ratio by Volume: 1.0  Mix Ratio by Volume: 1.0  Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin  Mix Ratio by Volume: 4.0  Pot Life (25°C)  90 to 130  min   | Tensile Modulus              | 8270                       | МРа      | ASTM D638   |
| Flexural Modulus 5310 MPa ASTM D790 Compressive Strength 114 MPa MPa ASTM D695 Thermal Nominal Value Unit Test Method Glass Transition Temperature 65.6 °C ASTM E1356 CLTE - Flow 3.0E-5 cm/cm/°C ASTM D696 Thermoset Mominal Value Unit Test Method Thermoset Components  Hardener Mix Ratio by Volume: 1.0  Mix Ratio by Weight: 15  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min   | Tensile Strength (Break)     | 45.3                       | MPa      | ASTM D638   |
| Compressive Strength 114 MPa ASTM D695  Thermal Nominal Value Unit Test Method  Glass Transition Temperature 65.6 °C ASTM E1356  CLTE - Flow 3.0E-5 cm/cm/°C ASTM D696  Thermoset Nominal Value Unit Test Method  Thermoset Components  Mix Ratio by Volume: 1.0  Hardener Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min  | Tensile Elongation (Yield)   | 0.60                       | %        | ASTM D638   |
| Thermal Nominal Value Unit Test Method Glass Transition Temperature 65.6 °C ASTM E1356 CLTE - Flow 3.0E-5 cm/cm/°C ASTM D696 Thermoset Nominal Value Unit Test Method Thermoset Components  Hardener Mix Ratio by Volume: 1.0  Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min  | Flexural Modulus             | 5310                       | MPa      | ASTM D790   |
| Glass Transition Temperature 65.6 CLTE - Flow 3.0E-5 CM/cm/°C ASTM D696 Thermoset Nominal Value Unit Test Method  Thermoset Components  Hardener Mix Ratio by Volume: 1.0  Mix Ratio by Weight: 15 Mix Ratio by Weight: 100  Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min   | Compressive Strength         | 114                        | MPa      | ASTM D695   |
| CLTE - Flow 3.0E-5 cm/cm/°C ASTM D696  Thermoset Components  Hardener Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min   | Thermal                      | Nominal Value              | Unit     | Test Method |
| Thermoset Components  Hardener  Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin  Mix Ratio by Volume: 4.0  Pot Life (25°C)  Nominal Value  Unit  Test Method  Test Me | Glass Transition Temperature | 65.6                       | °C       | ASTM E1356  |
| Thermoset Components  Mix Ratio by Volume: 1.0  Hardener  Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin  Mix Ratio by Volume: 4.0  Pot Life (25°C)  90 to 130  min  | CLTE - Flow                  | 3.0E-5                     | cm/cm/°C | ASTM D696   |
| Hardener Mix Ratio by Weight: 15 Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min   | Thermoset                    | Nominal Value              | Unit     | Test Method |
| Hardener Mix Ratio by Weight: 15  Mix Ratio by Weight: 100  Resin Mix Ratio by Volume: 4.0  Pot Life (25°C) 90 to 130 min  | Thermoset Components         |                            |          |             |
| Resin Mix Ratio by Volume: 4.0 Pot Life (25°C) 90 to 130 min   |                              | Mix Ratio by Volume: 1.0   |          |             |
| Resin Mix Ratio by Volume: 4.0 Pot Life (25°C) 90 to 130 min   |                              |                            |          |             |
| Resin Mix Ratio by Volume: 4.0 Pot Life (25°C) 90 to 130 min   |                              |                            |          |             |
| Resin Mix Ratio by Volume: 4.0 Pot Life (25°C) 90 to 130 min   | Hardener                     | Mix Ratio by Weight: 15    |          |             |
| Pot Life (25°C) 90 to 130 min  |                              | Mix Ratio by Weight: 100   |          |             |
| Pot Life (25°C) 90 to 130 min  |                              |                            |          |             |
| Pot Life (25°C) 90 to 130 min  |                              |                            |          |             |
| Pot Life (25°C) 90 to 130 min  | Resin                        | Mix Ratio by Volume: 4.0   |          |             |
|  |                              | •                          | min      |             |
|  |                              |                            |          | ASTM D2393  |

Demold Time (25°C)

7200 to 10000

min

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