

# MALEX 01EN002 - 6208

Polycarbonate

AD majoris

Message:

MALEX 01EN002 - 6208 is a medium viscosity polycarbonate (PC) resin and contains a release agent to ensure easy processing, intended for injection moulding. The product is available in orange (MALEX 01EN002 - 6208) but other colours can be provided on request  
They combine high mechanical, thermal and electrical properties with excellent chemical resistance and dimensional stability

APPLICATIONS

MALEX 01EN002 - 6208 is intended for the injection moulding of electrical components and automotive applications including interior, and electrical and mechanical systems, such as:

Electrical appliance components  
Dashboard components  
Lighting system

| General Information                      |                            |                   |              |
|------------------------------------------|----------------------------|-------------------|--------------|
| Additive                                 | Mold Release               |                   |              |
| Features                                 | Good Chemical Resistance   |                   |              |
|                                          | Good Dimensional Stability |                   |              |
|                                          | Good Electrical Properties |                   |              |
|                                          | Good Mold Release          |                   |              |
|                                          | Good Processability        |                   |              |
|                                          | Medium Viscosity           |                   |              |
|                                          | Recyclable Material        |                   |              |
| Uses                                     | Appliance Components       |                   |              |
|                                          | Automotive Electronics     |                   |              |
|                                          | Automotive Interior Parts  |                   |              |
|                                          | Electrical Parts           |                   |              |
|                                          | Lighting Applications      |                   |              |
| Appearance                               | Colors Available           |                   |              |
|                                          | Orange                     |                   |              |
| Forms                                    | Pellets                    |                   |              |
| Processing Method                        | Injection Molding          |                   |              |
| Physical                                 | Nominal Value              | Unit              | Test Method  |
| Density                                  | 1.20                       | g/cm <sup>3</sup> | ISO 1183     |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 11                         | g/10 min          | ISO 1133     |
| Molding Shrinkage - Flow                 | 0.50 to 0.70               | %                 | ASTM D955    |
| Water Absorption (Saturation, 23°C)      | 0.35                       | %                 | DIN 53495    |
| Mechanical                               | Nominal Value              | Unit              | Test Method  |
| Tensile Modulus                          | 2350                       | MPa               | ISO 527-2/1  |
| Tensile Stress (Yield)                   | 63.0                       | MPa               | ISO 527-2/50 |

|                                        |               |                   |                |
|----------------------------------------|---------------|-------------------|----------------|
| Tensile Strain (Break)                 | 70            | %                 | ISO 527-2/50   |
| Flexural Modulus <sup>1</sup>          | 2300          | MPa               | ISO 178        |
| Impact                                 | Nominal Value | Unit              | Test Method    |
| Notched Izod Impact Strength (23°C)    | 70            | kJ/m <sup>2</sup> | ISO 180/1A     |
| Unnotched Izod Impact Strength (23°C)  | No Break      |                   | ISO 180/1U     |
| Thermal                                | Nominal Value | Unit              | Test Method    |
| Heat Deflection Temperature            |               |                   |                |
| 0.45 MPa, Unannealed                   | 136           | °C                | ISO 75-2/B     |
| 1.8 MPa, Unannealed                    | 125           | °C                | ISO 75-2/A     |
| Vicat Softening Temperature            |               |                   |                |
| --                                     | 141           | °C                | ISO 306/B50    |
| --                                     | 142           | °C                | ISO 306/B120   |
| Ball Pressure Test (125°C)             | Pass          |                   | IEC 60695-10-2 |
| Electrical                             | Nominal Value | Unit              | Test Method    |
| Surface Resistivity                    | > 1.0E+15     | ohms              | IEC 60093      |
| Volume Resistivity                     | > 1.0E+17     | ohms · cm         | IEC 60093      |
|                                        | 17            |                   |                |
|                                        | 27            |                   |                |
| Electric Strength (0.800 mm, in Oil)   | 35            | kV/mm             | IEC 60243-1    |
| Relative Permittivity                  |               |                   | IEC 60250      |
| 50 Hz                                  | 2.70          |                   |                |
| 1 MHz                                  | 2.70          |                   |                |
| Dissipation Factor                     |               |                   | IEC 60250      |
| 50 Hz                                  | 1.0E-3        |                   |                |
| 1 MHz                                  | 0.010         |                   |                |
| Arc Resistance                         | 119           | sec               | ASTM D495      |
| Flammability                           | Nominal Value | Unit              | Test Method    |
| Flame Rating (3.00 mm)                 | HB            |                   | UL 94          |
| Glow Wire Flammability Index (1.00 mm) | 850           | °C                | IEC 60695-2-12 |
| Oxygen Index                           | 25            | %                 | ISO 4589-2     |
| Injection                              | Nominal Value | Unit              |                |
| Drying Temperature                     | 120           | °C                |                |
| Drying Time                            | 2.0 to 4.0    | hr                |                |
| Processing (Melt) Temp                 | 280 to 300    | °C                |                |
| Mold Temperature                       | 80.0 to 100   | °C                |                |
| Injection Rate                         | Fast          |                   |                |
| Back Pressure                          | 0.500 to 1.00 | MPa               |                |

## NOTE

1. 2.0 mm/min

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