

# ENVIROPLAS® ENV14-NC810

Polycarbonate  
ENVIROPLAS®, Inc.

Message:

Injection Molding Grade, Non-Bromine - Non-Chlorine Flame retardant, Impact Modified, w/Mold Release, UV Stabilized. Ideal for Outdoor Exposure Applications Requiring Ignition, Hydrolytic and UV Resistance along with Thermal Performance.

NC810 = To Be Assigned 5 Digit Number Indicating Natural, Black, or Custom Color.

Contact Enviropas regarding UL recognized versions of this product.

| General Information                      |                      |                   |             |
|--|----------------------|-------------------|-------------|
| Additive                                 | Flame Retardant      |                   |             |
|  | Impact Modifier      |                   |             |
|  | Mold Release         |                   |             |
|  | UV Stabilizer        |                   |             |
| Features                                 | Bromine Free         |                   |             |
|  | Chlorine Free        |                   |             |
|  | Flame Retardant      |                   |             |
|  | Good Mold Release    |                   |             |
|  | Good UV Resistance   |                   |             |
|  | Impact Modified      |                   |             |
| Uses                                     | Outdoor Applications |                   |             |
| RoHS Compliance                          | RoHS Compliant       |                   |             |
| Appearance                               | Black                |                   |             |
|  | Colors Available     |                   |             |
|  | Natural Color        |                   |             |
| Forms                                    | Pellets              |                   |             |
| Processing Method                        | Injection Molding    |                   |             |
| Physical                                 | Nominal Value        | Unit              | Test Method |
| Specific Gravity                         | 1.20                 | g/cm <sup>3</sup> | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg) | 16                   | g/10 min          | ASTM D1238  |
| Molding Shrinkage - Flow                 | 0.50 to 0.70         | %                 | ASTM D955   |
| Mechanical                               | Nominal Value        | Unit              | Test Method |
| Tensile Strength (Yield)                 | 60.7                 | MPa               | ASTM D638   |
| Tensile Elongation (Break)               | 120                  | %                 | ASTM D638   |
| Flexural Modulus                         | 2340                 | MPa               | ASTM D790   |
| Flexural Strength                        | 89.6                 | MPa               | ASTM D790   |
| Impact                                   | Nominal Value        | Unit              | Test Method |
| Notched Izod Impact (23°C)               | 770                  | J/m               | ASTM D256   |

| Thermal   | Nominal Value | Unit | Test Method     |
|---|---------------|------|-----------------|
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 121           | °C   | ASTM D648       |
| Flammability  | Nominal Value |      | Test Method     |
| Flame Rating  |               |      | Internal Method |
| 1.50 mm   | V-0           |      |                 |
| 3.00 mm   | 5VA           |      |                 |
| Injection   | Nominal Value | Unit |                 |
| Drying Temperature                                      | 110           | °C   |                 |
| Drying Time   | 3.0 to 4.0    | hr   |                 |
| Rear Temperature  | 254 to 277    | °C   |                 |
| Middle Temperature                                      | 254 to 277    | °C   |                 |
| Front Temperature                                       | 254 to 277    | °C   |                 |
| Nozzle Temperature                                      | 243 to 266    | °C   |                 |
| Mold Temperature  | 65.6 to 93.3  | °C   |                 |
| Injection Rate  | Moderate-Fast |      |                 |
| Back Pressure   | 0.00 to 0.345 | MPa  |                 |
| Screw Speed   | 40 to 70      | rpm  |                 |

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#### Recommended distributors for this material

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