

# Prime ABS Weather-X ML200

Acrylonitrile Butadiene Styrene

Primex Plastics Corporation

Message:

Offering one of the highest aesthetics, gloss and depth of image in the industry, our Weather-X ML200 may consist of 3-5 layers but is typically 3 consisting of clear acrylic, colored acrylic and ABS. Key properties are surface hardness, chemical resistance, weatherability, toughness and excellent formability.

Applications:  
Include; RV, automotive, transportation and marine industries.

Processing:  
Surface Temp = 325-350°F  
Mold Temp = 150-175°F  
De-mold @ 170°F  
Mold shrink is .004-.008 in/in.  
Oven heaters on gloss side should be somewhat lower than on the substrate side. The sheet must be fully saturated with heat before forming.

Finishing:  
When drilling co-extruded sheet with an acrylic modified drill bit, be sure to exit from the acrylic side but when drilling with a standard bit, be sure to have the bit exit from the substrate side. For accuracy and safety, acrylic capped sheet should be clamped during drilling. For cutting/trimming Weather-X ML 200 sheet with CNC or air routers, a standard solid carbide fiberglass router -diamond-cut tool can be used. Routing parts in a CNC environment is best done with chip-breaker-type, solid carbide tools.

Please contact your Primex Plastics representative for more information on finishing, fabricating, or the thermoforming process.

Colors, Textures and Capabilities:  
The surface is typically high gloss. Colors include Solids, Granite, Pearlescent, Swirl, Metallics, Soft White and Metamerism effects.

| General Information      |                             |                   |             |
|--------------------------|-----------------------------|-------------------|-------------|
| Features                 | Good Chemical Resistance    |                   |             |
|                          | Good Moldability            |                   |             |
|                          | Good Toughness              |                   |             |
|                          | Good Weather Resistance     |                   |             |
|                          | High Gloss                  |                   |             |
|                          | High Hardness               |                   |             |
|                          | High Heat Resistance        |                   |             |
|                          | High Impact Resistance      |                   |             |
|                          | High Tensile Strength       |                   |             |
|                          | Machinable                  |                   |             |
|                          | Pleasing Surface Appearance |                   |             |
| Uses                     | Automotive Applications     |                   |             |
|                          | Marine Applications         |                   |             |
|                          | Sporting Goods              |                   |             |
| Appearance               | Colors Available            |                   |             |
| Forms                    | Sheet                       |                   |             |
| Physical                 | Nominal Value               | Unit              | Test Method |
| Specific Gravity         | 1.06                        | g/cm <sup>3</sup> | ASTM D792   |
| Molding Shrinkage - Flow | 0.40 to 0.80                | %                 |             |

| Hardness  | Nominal Value | Unit | Test Method |
|---|---------------|------|-------------|
| Rockwell Hardness (R-Scale)                             | 102           |      | ASTM D785   |
| Mechanical  | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield)                                | 40.7          | MPa  | ASTM D638   |
| Flexural Modulus  | 2070          | MPa  | ASTM D790   |
| Flexural Strength                                       | 65.5          | MPa  | ASTM D790   |
| Impact  | Nominal Value | Unit | Test Method |
| Notched Izod Impact                                     | 220           | J/m  | ASTM D256   |
| Thermal   | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (1.8 MPa, Unannealed) | 87.8          | °C   | ASTM D648   |
| Optical   | Nominal Value |      | Test Method |
| Gardner Gloss (60°)                                     | 85            |      | ASTM D523   |
| Additional Information                                  | Nominal Value | Unit |             |
| De-mold Temperature                                     | 77            | °C   |             |
| Mold Temperature (other)                                | 66 to 79      | °C   |             |
| Surface Temperature                                     | 163 to 177    | °C   |             |

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### Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China



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