# Prime ABS Weather-X ML500

### Acrylonitrile Butadiene Styrene

#### Primex Plastics Corporation

#### Message:

A multi-layer sheet structure of up to 5 layers but is typically 3 consisting of Acrylic, ASA and ABS. An acrylic clear coat finish provides a hard, stain resistant surface that has excellent gloss, depth of image, chemical resistance and surface hardness. This layering technique provides superior UV protection, color stability and ease of formability.

Applications:

Includes agriculture, spa, automotive, transportation and marine industry applications.

Processing:

Surface Temp = 325-350°F,

Mold Temp = 150 - 175°F,

De-mold @ 170°F

Mold shrink is 0.004-0.008 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/profile 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 ML500 sheet with CNC or air routers, a standard solid carbide fiberglass router - diamondcut tool can be used. Routing parts in a CNC environment is best done with chipbreaker-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. The colors are Solids, Granite, Pearlescent, Swirl, Metallics, Soft White and Metamerism Effects.

General Information			
Features	Good Chemical Resistance		
	Good Color Stability		
	Good Moldability		
	Good UV Resistance		
	High Gloss		
	High Hardness		
	High Heat Resistance		
	High Impact Resistance		
	High Tensile Strength		
	Stain Resistant		
Uses	Agricultural Applications		
	Automotive Applications		
	Marine Applications		
Appearance	Colors Available		
Forms	Sheet		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.06	g/cm³	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)	40.0	MPa	ASTM D638
Flexural Modulus	2410	MPa	ASTM D790
Flexural Strength	73.1	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact	190	J/m	ASTM D256
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8			
MPa, Unannealed)	92.2	°C	ASTM D648
Optical	Nominal Value		Test Method
Gardner Gloss (60°)	90		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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#### Recommended distributors for this material

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