EMDA-6200 HDPE Blow Molding Resin

DESCRIPTION

EMDA-6200 grade is a high-density polyethylene copolymer resin designed for blow molding small to medium size bottles. It can be used on intermittent as well as continuous blow molding machines for high-speed production of high quality bottles. The bottles have excellent environmental stress cracking resistance and a good balance of rigidity and impact strength. They are easily trimmed and exhibit excellent surface attributes.

APPLICATIONS

EMDA-6200 is intended for producing containers of up to 10 liter capacity for packaging household and industrial chemicals (detergents, bleach, fabric softeners, etc.) toiletries, cosmetics and food products. It is also suitable for producing thin-walled parts and household items.
In addition EMDA-6200 can also be used successfully for extruding sheets and profiles including corrugated drainage pipes.

TYPICAL PROPERTIES

Properties	Units	Test Method	Typical Value
Resin Properties			
Melt Index, $I_{2.16}$	g/10 min	ASTM D 1238	0.4
High Load Melt Index, $I_{21.6}$	g/10 min	ASTM D 1238	29
Density	g/cm^3	ASTM D792	0.954
Thermal Properties			
Vicat Softening Temperature	°C	ASTM D 1525	125
Deflection Temperature (445 KPa Load)	°C	ASTM D 648	70
Melting Point	°C	EQUATE	135
Crystallization Point	°C	EQUATE	112
Coefficient of Linear Expansion	cm/cm/°C	ASTM D 696	1.2×10^{-4}
Mechanical Properties			
Tensile Strength at Yield	MPa	ASTM D 638	27
Ultimate Tensile Elongation	%	ASTM D 638	1140
Flexural Modulus	MPa	ASTM D 790	1250
Brittleness Temperature	°C	ASTM D 746	<-100
$ESCR^+$, F_{50}	Hours	ASTM D 1693 B	50
Bottle* Properties			
Top Crushing Load at Failure, 23°C	Kg	ASTM D 2659	50
Drop Impact, Mean Failure Height	m	ASTM D 2463	4.3

$^+$ Environmental Stress Cracking Resistance
* 41g Boston Round quart (0.946 liter) bottle
ASTM: American Society for Testing and Materials

TYPICAL MOLDING CONDITIONS

Molding Temperatures for Intermittent Machines	
Barrel Zone 1, °C	175-180
Barrel Zone 2-4, °C	185-190
Head and Die, °C	185-190
Melt Temperature, °C	200-215
Molding Temperature for Continuous Machines	
Barrel Zone 1, °C	175-180
Barrel Zone 2-4, °C	185-190
Head and Die, °C	185-190
Adapter, °C	185-190
Melt Temperature, °C 90 RPM	215
130 RPM	220

FOOD CONTACT USAGE

EMDA-6200 can be used for all food contact applications including holding food during cooking. It conforms to US FDA Regulation 21 CFR 177.1520 as well as EC Directive 90/128/EEC and its amendments to-date. Food contact suitability certificate is available upon request.

AVAILABILITY

EMDA-6200 is supplied in 25-Kg bags in secured pallets of 55 bags (1.375 MT net). It is also supplied in sea bulk containers of up to 20 MT.

STORAGE AND HANDLING

EMDA-6200 is supplied in pellet form and is readily conveyed on conventional polyethylene bulk handing equipment. The bulk handling system should be designed to prevent accumulation of fines and dust particles that can pose an explosion hazard. Ensure all equipment is properly grounded. The product should be stored in a cool dry shaded area away from dust, sunlight and heat. For more details on storage and handling see our Polyethylene Storage and Handling Guide. Also carefully review the Material Safety Data Sheet supplied with this product for health, safety and waste considerations.

IMPORTANT NOTICE

The information supplied in this bulletin to the best of our knowledge is accurate and factual as of the date printed. It is offered solely as a convenience to EQUATE's customers and is intended only as a guide for EMDA-6200. Since the user's specific applications and conditions of use are beyond EQUATE's control, EQUATE makes no warranty or representation regarding results that may be obtained by the user. It shall be the responsibility of the user to determine the suitability of the product for the user's specific application. The information disclosed in this document is not to be construed as a recommendation to use the product in infringement of any patent rights covering the usage.

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