

Mass Transportation Rail Low FST

BAYBLEND MTR Sheet is an opaque, flame retardant polycarbonate blend. It offers a unique combination of flammability characteristics, robust mechanical properties, and ease of fabrication. BAYBLEND MTR complies with the flammability and smoke emission requirements for transit materials established by the US Federal Railroad Administration, listed in DOT: 49 CFR 238, Appendix B, and meets the criteria in the Bombardier Transportation Standard SMP 800-C for Toxic Gas Generation.

BAYBLEND MTR has a lower specific gravity, coupled with higher stiffness, strength and toughness compared to typical non-metallic materials used for mass transportation interior components. This allows for design of thinner and lighter parts, not requiring secondary reinforcement or stiffeners after fabrication. BAYBLEND MTR is resistant to a variety of commercially available cleaners. It can be laminated with protective and decorative films, and is available in multiple textures and colors.

Applications

Thermoformed rail interior parts such as structural seating components, wall cladding, window reveals and ceiling panels

Typical Properties			
Properties	Test Method	Units	Values
PHYSICAL Specific Gravity Moisture Absorption, 24 hrs	ASTM D792 ASTM D570	- %	1.3 0.1
MECHANICAL Tensile Strength, Yield Tensile Elongation Tensile Modulus Izod Impact Strength, Notched @ 0.125" Instrumented Impact @ 0.125" Rockwell Hardness	ASTM D638 ASTM D638 ASTM D638 ASTM D256 ASTM D3763 ASTM D785	psi % psi ft-lbs/in ft-lbs -	8,000 20 575,000 1.4 16 M53/R115
THERMAL Coefficient of Thermal Expansion Heat Deflection Temperature @ 66 psi Heat Deflection Temperature @ 264 psi Vicat Softening Temperature	ASTM D696 ASTM D648 ASTM D648 ASTM D1525	in/in/°F °F °F °F	2.60 x 10 ⁻⁵ 221 206 226
ELECTRICAL Dielectric Constant Volume Resistivity Dissipation Factor Dielectric Strength	ASTM D150 ASTM D257 ASTM D150 ASTM D149	- Ohm-cm - V/mil	3.1 5 x 10 ¹⁵ 0.005 500
FLAMMABILITY Smoke Density, 4 min Flame Spread Index Burning Dripping Bombardier Toxic Gas Generation Boeing Toxic Gas Generation	ASTM E662 ASTM E162 ASTM E162 SMP 800-C BSS7239	- - - - -	50 15 None Pass Pass

Regulatory Code Compliance and Certifications

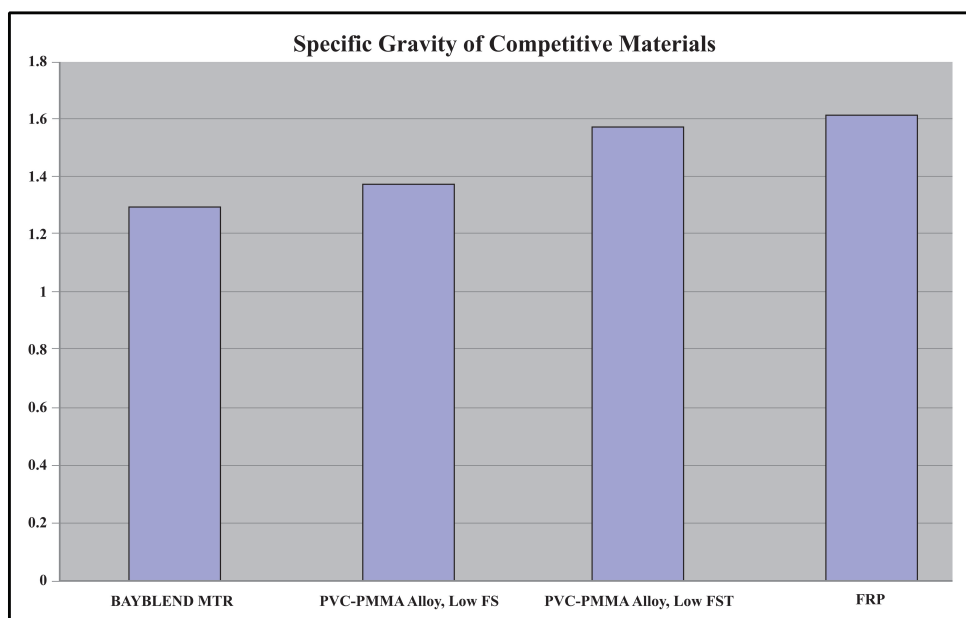
Complies with requirements of Department of Transportation, Federal Railroad Administration: 49 CFR 238, Appendix B

Product Data

BAYBLEND® MTR Sheet

Weight Savings

BAYBLEND MTR has a lower specific gravity and higher stiffness than typical non-metallic materials used for mass transportation interior components. This unique property profile can provide over 30% weight savings for components designed for specific stiffness when compared with other materials as shown below.



Thermoforming

BAYBLEND MTR can be thermoformed using conventional tooling and processes for thermoplastic materials such as PVC alloys, ABS and polycarbonate. Optimal results can be obtained with fluid-heated aluminum tooling. Suggested tooling temperatures are 125°F – 205°F. Depending on geometry BAYBLEND MTR parts can be formed with and without vacuum-assist and plug-assist. Textures can be achieved via in mold texturing or through retention of texture as supplied using vacuum-forming. Recommended sheet temperature for thermoforming is 350°F – 440°F. For best results, BAYBLEND MTR should be pre-dried in a dessicated hot-air circulating oven at 180°F from 8 to 24 hours depending upon sheet thickness.

Secondary Operations

BAYBLEND MTR can be cut and drilled with standard saws and tooling. Finished parts can be assembled using conventional mechanical fastening techniques or by gluing or welding. BAYBLEND MTR can be painted and printed using standard paints and inks that are suitable for polycarbonate. No surface pre-treatment is necessary.

Disclaimer

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.



BAY MTR 0209

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