

# Prime Tuff-X STF

Thermoplastic Elastomer Alloy

Primex Plastics Corporation

Message:

This product consists of a Thermoplastic elastomer skin laminated to closed-cell, cross-linked polyolefin foam that is then laminated to our Tuff-X rigid substrate. Low gloss and soft feel eliminate the need for soft-touch paint. (<5% after forming) It also helps eliminate the squeak and rattle that is characteristic of Styrenics. Recycling of unpainted scrap is possible with no loss of properties.

Applications:

Tuff-X STF is ideal for interior and exterior components, including center consoles, instrument panels, door panels, and many others. This addresses the customers' desire for a low-gloss, soft feel material to soften interior and exterior applications in markets such as agricultural equipment, marine, heavy trucks, RV cabs, and others, while utilizing a thermoplastic, recyclable material.

Processing:

Prime Tuff-X STF can be formed using standard forming equipment. The foam/skin side should not be formed against the tool. Radiant heat works best, Zone controlled ceramic or quartz heaters are preferred. The run out or flange area should be greater than what is figured for ABS or HIPS. The substrate should reach normal forming temperature but the foam should not exceed 310°F.

Finishing:

Tuff-X STF can be fabricated by using steel rule or hard dies, heated knives or tooling will also work, however, routing and sawing is not recommended. Mechanical screws and fasteners, as well as some adhesives that have been developed by 3M, may be used for bonding. Please contact your Primex Plastics representative for more information on finishing, fabricating, or the thermoforming process.

Colors, Textures and Capabilities:

Primex typically offers a Naples and Leather texture and four colors consisting of light and dark, tan and gray. Custom color matching is available but order sizes must be approved.

General Information	
Features	Crosslinkable
	Foamable
	High Heat Resistance
	High Impact Resistance
	High Tensile Strength
	Low Gloss
	Low Temperature Impact Resistance
	Recyclable Material
	Soft
Uses	Agricultural Applications
	Automotive Instrument Panel
	Automotive Interior Parts
	Foam
	Marine Applications
Appearance	Colors Available
	Dark Grey
	Grey
	Light Grey
	Tan

Forms	Sheet		
Processing Method	Thermoforming		
Physical	Nominal Value	Unit	Test Method
Density	0.731	g/cm <sup>3</sup>	ISO 1183
Molding Shrinkage	0.70 to 0.90	%	ISO 294-4
Hardness	Nominal Value	Unit	Test Method
Shore Hardness <sup>1</sup> (Shore A)	88		ISO 868
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	21.4	MPa	ISO 527-2
Flexural Modulus	2070	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Instrumented Dart Impact			ASTM D3763
-15°C, Total Energy <sup>2</sup>	63.0	J	
23°C, Total Energy	52.0	J	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature <sup>3</sup>			
0.45 MPa, Unannealed	116	°C	ISO 75-2/B
1.8 MPa, Unannealed	60.0	°C	ISO 75-2/A
CLTE - Flow	5.0E-5	cm/cm/°C	
NOTE			
1.	Skin		
2.	50% ductile		
3.	Substrate		

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

#### Recommended distributors for this material

### 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

