

T-BLEND® is a series of thermoplastic rubber compound materials produced by TSRC CORPORATION.

T-BLEND® 1001-45C is a pre-formulated and pelletized thermoplastic elastomer compound based on styrenic block copolymer. It is designed for the injection molding of non-toxic toy components and insole product parts. It has the smooth surface and the clear appearance. It is very suitable to apply in manufacturing soft product and get the comfortable touch feeling.

Being a thermoplastic elastomer, **T-BLEND® 1001-45C** can be easily processed with general processing equipment and tools designed for thermoplastics and yet possess elastomeric properties at ambient temperatures.

Physical Properties :

Characteristics	Methods	Conditions	Units	Values
Form	N/A	--	-	Pellets
Color	N/A	--	-	Transparent
SP.GR/Density	ASTM D792	--	-	0.89~0.95
Hardness (Shore A)	ASTM D2240	A Type	Shore A	42~48
Tensile strength at break	ASTM D412	Type 3, Specimen	kgf/cm ²	62 Typical
Elongation at break	ASTM D412	500 mm/min	%	986 Typical
300% Modulus	ASTM D412	500 mm/min	kgf/cm ²	27 Typical
Tear strength	ASTM D624	C Die	kgf/cm	31 Typical
Melt flow index	ASTM D1238	5 kg@180°C	g/10 min	10~30

Remarks : 1 MPa = 10.2 kg/cm² ;
1 kg/cm² = 14.2 psi ◦

Processing Guide:

T-BLEND® 1001-45C is a versatile material and can be processed by using injection molding methods.

T-BLEND® 1001-45C can be processed by using high shear rate injection molding methods.

Stability of **T-BLEND® 1001-45C** is excellent at normal processing temperatures. However should



inadvertent loss of temperature control lead to decomposition the degradation products are non-corrosive. Generally, it reacts the same as other easy molding thermoplastics, such as polystyrenes. The finished parts have sharp and well defined details.

Typical starting conditions for a reciprocating screw injection molding machine are listed in the accompanying chart.

Barrel Temperature:

Information below is our molding guide, but actual operation should rely on your processing experience.

Items	Values	
Barrel Temp. (°C)	Feed	150
	Front	160
	Rear	170
	Nozzle	180
Mold Temp. (°C)	30 ~ 40	
Back Pressure(kg/cm ²)	Low	
Injection speed	Moderate	
Cycle (sec)	60 ~ 80	

(1kg/cm² = 14.223 psi)

Others :

Typical mold shrinkage for **T-BLEND® 1001-45C** is between 0.020-0.025 inch/inch. And the scrap is 20% recyclable without loss in properties.

The pigment can be used to colour **T-BLEND® 1001-45C**. And dyestuff cannot apply in TPR product.

