

T-BLEND® 5000N-AB is a pre-formulated and pelletized general-purpose thermoplastic elastomer compound based on styrene butadiene block copolymer.

It is designed for the over-molding of soft-touch elastomer components onto hard thermoplastics such as ABS, PC. This material exhibits excellent flow properties and offers molded articles with fine texture, dry surface and excellent rubbery feeling.

Being a thermoplastic elastomer, T-BLEND® 5000N-AB can be easily processed with general processing equipment and tools designed for thermoplastics and yet possess elastomeric properties at ambient temperatures.

Properties

Characteristics	Methods	Typical values
Product Form	NA	Pellets
Colour	NA	Natural
Specific Gravity	ASTM D 792	1.03
Hardness (Injection Test Piece, Shore A)	ASTM D 2240	48±3
Tensile Strength at Break (kg/cm ²)	ASTM D 412	57.8
Elongation at Break (%)	ASTM D 412	660
Modulus at 300% (kg/cm ²)	ASTM D 412	28
Tear strength (kg/cm)	ASTM D 624	38.6
Melt Flow Index 5 kg @ 180°C	ASTM D 1238	25
Rebound (%)	ASTM D 1054	55.2
Akron (c.c / 2lb * 2200rev)	B.S 903	0.29

Processing Guide

T-BLEND® 5000N-AB rubber is a versatile material and can be processed by using high shear rate injection molding methods. Stability of T-BLEND® 5000N-AB 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. These values are intended only as guidelines, and the optimum conditions will vary from machine to machine.

Typical mold shrinkage for T-BLEND[®]5000N-AB is between 0.015-0.025 inch/inch. Short cycle time can be achieved and the scrap is 10% recyclable without loss in properties. Before using, T-BLEND[®]5000N-AB should be dried to increase bonding strength and avoid decomposed.

LDPE or EVA colour concentrates can be used to colour T-BLEND[®]5000N-AB.

Suggested Processing Conditions	
Dry condition	70-80°C / 2hrs
Barrel temperature	
Feed	80°C
Rear	160°C
Front	170°C
Nozzle	180°C
Mold temperature	30 - 40°C
Back pressure	3.5 - 7 kg/cm ²
Injection rate	Moderate
Cycle time	25 - 50 sec

(1kg/cm² = 14.223 psi)

Precaution in handling and storing

T-BLEND[®]5000N-AB rubber pellets present no unusual handling problems, thus normal procedures for handling solids that might form a dust should be followed.