

T-BLEND[®]4404N-SP-1 is a pre-formulated and pelletized general-purpose thermoplastic elastomer compound based on styrene ethylene-butylene styrene (SEBS).

It is designed for the over-molding of soft-touch elastomer components onto hard olefin thermoplastics such as PP, PE resins.

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[®]4404N-SP-1 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	1.07
Hardness (Injection Test Piece)	ASTM D 2240	44 ±3
Tensile Strength at Break (Mpa)	ASTM D 412	23.0
Elongation at Break (%)	ASTM D 412	240
300% Modulus	ASTM D 412	---
Melt Flow Index 5 kg @ 180°C	ASTM D 1238	28
Tear strength	ASTM D 624	14.2
Rebound (%)	ASTM D1054	57.0

Processing Guide

T-BLEND[®]4404N-SP-1 rubber is a versatile material and can be processed by using high shear rate injection molding methods. Stability of T-BLEND[®]4404N-SP-1 is excellent at normal processing temperature. 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®4404N-SP-1 is between 0.015-0.025 inch/inch. Short cycle time can be achieved and the scrap is 30% recyclable without loss in properties.

LDPE or EVA colour concentrates can be used to colour T-BLEND®4404N-SP-1.

Suggested Processing Conditions	
Barrel temperature	
Feed	80°C
Rear	170°C
Front	175°C
Nozzle	180°C
Mold temperature	30 - 40°C
Back pressure	50 - 100 psi
Injection rate	Moderate
Cycle time	25 - 50 sec

Precaution in handling and storing

T-BLEND®4404N-SP-1 rubber pellets present no unusual handling problems, thus normal procedures for handling solids that might form a dust should be followed.