

T-BLEND<sup>®</sup>2092N-NE 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<sup>®</sup>2092N-NE 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	Clear
Specific Gravity	ASTM D 792	0.88
Hardness (Injection Test Piece, Shore A)	ASTM D 2240	20
Tensile Strength at Break (kg/cm <sup>2</sup> )	ASTM D 412	22
Elongation at Break (%)	ASTM D 412	680
300% Modulus (kg/cm <sup>2</sup> )	ASTM D 412	11
Tear Strength at Break (kg/cm)	ASTM D 624	12.0
Melt Flow Index 5KG@180°C	ASTM D 1238	95
Rebound (%)	ASTM D 1054	---

## Processing Guide

T-BLEND<sup>®</sup>2092N-NE rubber is a versatile material and can be processed by using injection molding methods.

T-BLEND<sup>®</sup>2092N-NE rubber is a versatile material and can be processed by using high shear rate injection molding methods. Stability of T-BLEND<sup>®</sup>2092N-NE 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®2092N-NE 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®2092N-NE. And dyestuff cannot apply in TPR product.

Suggested Processing Conditions	
Barrel temperature	
Feed	75°C
Rear	140~155°C
Front	155~165°C
Nozzle	165~180°C
Mold temperature	30-40°C
Back pressure	low
Injection rate	Moderate
Cycle time	60 – 80 sec

(1kg/cm<sup>2</sup> = 14.223 psi)

## Precaution in handling and storing

T-BLEND®2092N-NE rubber pellets present no unusual handling problems, thus normal procedures for handling solids that might form a dust should be followed. Non-Toxicity Declaration

This formulation is composed of TSRC, extender and additives known to manufacturer as food-contact and generally recognized as safe materials. This compound may contain Tris-nonyl-phenyl phosphite(TNPP) as stabilizer/anti-oxidant system in one of the polymer used.

Upon performing its function as a stabilizer it, if present, reacts with oxygen releasing nonylphenol that may migrate out of the polymer and the residual nonylphenol content in the polymers should not exceed 300 ppm. Determination of migration of nonylphenol content in the polymer has shown that the level of migration is well below regulatory limits in the USA and European Union.

Under proper storage and handling the uncontaminated material should not cause any irritation to human skin and eyes. It should not generate or decompose into hazardous substances when processed of within recommended temperature range.

It is our advice that fabricators using this compound should conduct their own tests to confirm product suitability in meeting requirements for food-contact or mouth-contact applications.