

# T60-H00



## Introduction

Seflor® T60-H00 fluoroelastomer is a medium-high viscosity terpolymer of hexafluoropropene, tetrafluoroethylene and vinylidene fluoride particularly suitable for injection moulding of sealing devices that must meet the most critical conditions of usage. Due to narrow molecular weight distribution and a low long chain branching content Seflor® T60-H00 fluoroelastomer offers significant processing ease that can be modified when blended with similar fluoroelastomers. High level of fluoride makes the T60-H00 particularly suitable for applications where high chemical resistance is required.

## Seflor® T60-H00 provides:

- High chemical resistance
- improved injection rate
- fast curing rates
- low mould fouling
- easy mould release
- good mould flow
- improved extrusion
- good compression set resistance

## Application

- Injection Moulded goods
- O rings
- Gaskets, seals and profiles
- Extruded cords

## Safety and Handling

Despite the chemical inertness at ambient temperature, Seflor® T types fluoroelastomers should be handled in such a way to avoid contact with skin and eyes. In case of contact, wash thoroughly with soap and water. Store in a well ventilated place away from any source of heat. Smoking is strictly forbidden in working and storage areas. In the event of fire, toxic gases are produced. Refer to MSDS for additional information. For the safe handling of other compound ingredients normally used in fluoroelastomers compounding, please refer to the respective manufacturers.

## Product Description

<b>Chemical Composition</b>	Terpolymer of hexafluoropropene, tetrafluoroethylene and vinylidene fluoride
<b>Physical Form</b>	Slabs
<b>Color</b>	Off white
<b>Odor</b>	Odorless
<b>Specific Gravity</b>	1,90 ± 0,02 g/cm <sup>3</sup>
<b>Fluorine Content</b>	70 %
<b>Glass transition temperature (Tg)</b>	- 9 ± 1°C
<b>Solubility</b>	Low molecular weight esters and ketones
<b>Storage Stability</b>	Excellent
<b>Mooney Viscosity, ML 1+10 at 121 °C (250 °F)</b>	60 MU

## Seflor® T60-H00 typical Compound

<b>Seflor® T60-H00</b>	91,6	phr
<b>High activity magnesium oxide (MgO)</b>	3	phr
<b>Calcium Hydroxide (Ca(OH)<sub>2</sub>)</b>	6	phr
<b>Medium Thermal Carbon Black (N990)</b>	13	phr
<b>Blank Fixe Micro</b>	30	
<b>Seflor® Curative 1<sup>1</sup></b>	6,9	phr
<b>Seflor® Curative 3<sup>2</sup></b>	1,5	phr
<b>Processing aids (wax)</b>	1	phr

1) Fluoroelastomer masterbatch 33% by weight of Bisphenol AF (4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bisphenol) and Benzyltriphenylphosphonium salt with 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bisphenol (1:1)

2) Fluoroelastomer masterbatch 33% by weight of Benzyltriphenylphosphonium chloride

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## Performance of Seflor® T60-H00 in typical Compound

### STOCK PROPERTIES

MDR at 180 °C, 6 min

**ML** 1,63 dN\*m

**T<sub>s2</sub>** 1,12 min

**T<sub>c90</sub>** 2,81 min

**MH** 22,05 dN\*m

Mechanical properties at 23°C, after aging in air 70 hrs at 250°C

**100% modulus** 4,1 MPa

**Tensile strength** 10,8 MPa

**Elongation at the break** 280 %

**Hardness** 78 ShoreA

**Compression set, Method B disks, 25% def.**

Aged 70 hr @ 200°C 35%

### Test procedures

**Compression set** ASTM D 395, Method B

**Compression set, O-ring** ASTM D 1414

**Hardness** ASTM D 2240, Durometer A (Shore A)

**MDR (Moving Die Rheometer)** ASTM D 5289

### VULCANIZATE PROPERTIES

Slabs cured 10 min at 180°C, 110 kPa, post cured 3+18 hrs at 230°C

**100% modulus** 4,2 MPa

**Tensile strength** 11,1 MPa

**Elongation at the break** 209 %

**Hardness** 76 ShoreA

Swelling resistance in test fluids, Δ Volume %

**Fuel C, 70 hr at 23°C** + 3,0 %

**M15 (85% Fuel C / 15% Methanol), 70 hr at 23°C** + 7,0 %

**IRM 903 Oil, 70 hr at 150°C** + 1,2 %

**Mooney viscosity** ASTM D 1646

**Property change after oven heat aging** ASTM D 573

**Stress strain properties** ASTM D 412

**Volume change in fluids** ASTM D 471

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