

Introduction

ELIFLON-T30-H00 fluoroelastomer is a medium 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 ELIFLON-T30-H00 fluoroelastomer offers significant processing ease that can be modified when blended with similar fluoroelastomers. High level of fluoride makes the ELIFLON-T30-H00 particularly suitable for applications where high chemical resistance is required.

ELIFLON-T30-H00 application:

- high chemical resistance
- improved injection rate
- fast curing rates
- low mould fouling
- easy mould release
- good mould flow
- improved extrusion
- good compression set resistance
- injection Moulded goods
- O rings
- Gaskets, seals and profiles
- Extruded cords

Safety and handling

Despite the chemical inertness at ambient temperature, ELIFLON 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

Chemical Composition	Terpolymer of hexafluoropropene, tetrafluoroethylene and vinylidene fluoride
Physical form	Slabs
Colour	Off-white
Odour	Odorless
Specific Gravity	1,90 ± 0,03 g/cm ³
Fluorine content	70%
Solubility	Low molecular weight esters and ketones
Storage stability¹	Excellent
Mooney viscosity - ML 1+10 at 121 °C (250°F)	30 ± 5 MU

1) At ambient temperature in a well-ventilated place

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ELIFLON-T30-H00 typical compound

TEST COMPOUND

ELIFLON-T30-H00	91,6	phr
Magnesium oxide (MgO)	3	phr
Calcium Hydroxide (Ca(OH) ₂)	6	phr
Medium Thermal Carbon Black (N990)	13	phr
Blanc Fixe Micro (BaSO ₄)	30	phr
ELIFLON-CURATIVE-1-C ¹	6,9	phr
ELIFLON-CURATIVE-3-C ²	1,5	phr
Processing aids (wax)	1	phr

1) Fluoroelastomer masterbatch 33% by weight of Bisphenol AF {4,4'-[trifluoro-1(tri-fluoromethyl)ethyldiene]bisphenol} and Benzyltriphenylphosphonium salt with 4,4'-[2,2,2-tri-fluoro-1-(trifluoromethyl)ethyldiene]bisphenol (1:1).

2) Fluoroelastomer masterbatch 33% by weight of Benzyltriphenylphosphonium chloride.

Performance of ELIFLON-T30-H00 in typical compound

STOCK PROPERTIES

MDR at 180°C, 6 min

ML	1,32	dN*m
T _{S2}	76	s
T _{C90}	187	s
MH	19,1	dN*m

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

100% modulus	3,9	MPa
Tensile strength	10,5	MPa
Elongation at the break	300	%
Hardness	78	ShoreA

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Compression set, Method B disks, 25% def.

Aged 70 hr @ 250°C	35	%
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VULCANIZATE PROPERTIES

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

100% modulus	4.0	MPa
Tensile strength	10.9	MPa
Elongation at the break	305	%
Hardness	76	ShoreA

Swelling resistance in test fluids, Δ Volume %.

Fuel C, 70 hr at 23°C	+3,0	%
Methanol (99%), 70 hr at 23°C	+7,0	%
IRM 903 Oil, 70 hr at 150°C	+1,2	%

Test procedures

Compression Set {22 h @200°C, 25% deformation}	ASTM D 395, Method B
Hardness	ASTM D 2240, Durometer A(Shore A)
Compression set, O-ring	ASTM D 1414
MDR (Moving Die Rheometer)	ASTM D 5289
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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Packaging

ELIFLON-T30-H00 is packaged in boxes on 1000 kg/pallet with base measures 120 cm x 110 cm and height 140 cm.

Packaging recycling instructions:

- pallet: 
- cardboard: 
- straps: 
- labels: 
- bags: 

The information contained in these specifications is based on the technical data of Sersar Srl and is provided free of charge. It is to be used solely by skilled individuals who use the material described, alone or in a mixture with other materials, shall ensure that the particular conditions or the particular formulations adopted present no health or safety hazard. Because conditions of product use or disposal are beyond our control, Sersar Srl issues no warranty, express or implied, and assumes no liability in connection with use of the information provided. The information contained herein is intended only as a guideline. An appropriate evaluation of any mixture of the material described above with other materials is absolutely necessary. The material described herein is not suitable for any implantation into the human body.

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