



# TABOCAB SXI 007

**Silane cross-linkable low-density compound suitable for cable insulation**

## Description

**TABOCAB SXI 007** is a crosslinkable insulation and sheathing compound made by SIOPLAS technology suitable for LV automotive applications. Compound has improved oil, ozone and abrasion resistance and it is designed for operating temperatures from -40 °C to 125 °C. The recommended Catalyst Masterbatches for this compound are **TABOCAB CM 011** and **TABOCAB CM 012**.

**Typical application:**

**TABOCAB SXI 007** is designed for automotive cables of constructions: FLMR2X, FLR2X, TXL, FLR2X11Y. The properties of this compound comply with the requirements of: **ISO 6722; LV 112; SAE J 1128**.



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**CONSTRUCTION APPLICATIONS**



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	Typical properties	Test method	Unit	Nominal value
<b>Physical properties</b>	Density	ISO 1183-1A	g/cm <sup>3</sup>	0,946
	Melt Flow Index (190 °C/5 kg)	ISO 1133	g/10 min	0,9
	Bulk density	ISO 60	g/cm <sup>3</sup>	0,58
	Shore hardness	ISO 868	Shore D	62
	Moisture content	ISO 15512	%	< 0,05
	Gel content (adding 5 % CM 012)	ISO 101417	%	> 50
<b>Mechanical properties</b>	Tensile strength at break	EN 60811-501	MPa	21,0
	Tensile elongation at break	EN 60811-501	%	> 700
<b>Thermal properties</b>	<i>Hot set test 200 °C (20 N/cm<sup>2</sup>)</i>			
	Elongation under load	EN 60811-507	%	10
	Permanent elongation	EN 60811-507	%	-5
	<i>Hot set test 250 °C (20 N/cm<sup>2</sup>)</i>			
	Elongation under load	EN 60811-507	%	+40
	Permanent elongation	EN 60811-507	%	-10
	<i>Hot set test 200 °C after ageing in air oven (20 N/cm<sup>2</sup>, 175°C, 6 hr)</i>			
	Change in tensile strength	EN 60811-507	%	+40
	Change in tensile elongation	EN 60811-507	%	-10
	<i>Mechanical properties after ageing in air oven (175 °C, 6 hr)</i>			
	Change in tensile strength	EN 60811-401	%	+25
	Change in tensile elongation	EN 60811-401	%	+5
	Cold bend test (-40 °C)	EN 60811-504	-	no cracks
	Cold impact test (-40 °C)	EN 60811-506	-	no cracks
Hot pressure test - max. penetration (90°C)	EN 60811-508	%	< 50	
Hot air shrinkage (1 hr, 120 °C)	EN 60811-509	%	< 2	
<b>Flammability</b>	Caloric potential (upper gross)	ISO 1716	MJ/kg	37

**Notes\*** The above values are typical for this material, not standardized.



## Processing Guidelines

### Drying:

**TABOCAB SXI 007** is recommended to be pre-conditioned at least 18 °C before the opening of the package to avoid moisture condensation on the surface of the compound.

### Additional level:

Catalyst Masterbatch and graft polymer **TABOCAB SXI 007** are normally added in the ratio of 95 parts of graft to 5 parts of catalyst MB. This formulation insures optimum processing conditions and application performance of the XLPE material.

**TABOCAB CM 011** - For cable dimensions  $\leq 2,5\text{mm}^2$

**TABOCAB CM 012** - For cable dimensions  $> 2,5\text{mm}^2$

Coloring: PE-based masterbatches added at 0,5 - 1,5 % by weight. Higher dosages of color masterbatch may negatively influence the final physical properties such as volume resistivity.

### Machine requirements:

**TABOCAB SXI 007** can be processed on standard extrusion lines with a thermoregulation system.

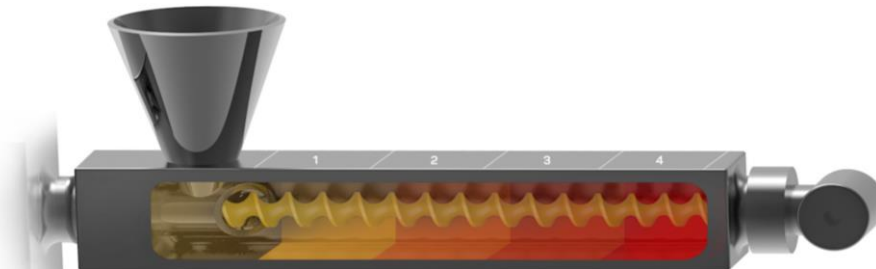
Screw cooling is not required, but effective steering of the cylinder temperatures with suitable cooling is recommended. A breaker plate and filter net (80 - 140 mesh/cm<sup>2</sup>) are recommended to be used.

### Screw:

Preferably compression: 2,5-3 : 1 (standard PE screw)

Screw length: 20-30 L/D

### Temperature profile:



	Feeder	Zone 1	Zone 2	Zone 3	Zone 4	Collar	Head	Die
Min (°C)	15	135	140	160	160	170	180	200
Max (°C)	40	155	160	180	180	190	200	220

### Cross - linking cure

The following methods are recommended:

- By immersion of the final product in hot water at 70 - 90 °C
- By exposure to low pressure steam at 60 - 80 °C (about 0,15 bar)
- By ambient exposure, kinetics of cross-linking depends on ambient temperature and relative humidity

### Storage and handling

**TABOCAB SXI 007** must be stored under following conditions:

- Closed and undamaged bags
- Ambient temperature not exceeding 30 °C
- Exposure to direct sun radiation must be avoided
- Shelf life: 6 months from the production date printed on the packaging
- material should be used directly after opening the packaging

### Packaging

Boxes of 600 kg containing a moisture resistant multilayer lining

Moisture resistant multilayer bags containing 20 kg



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