

## LARIPUR RS

The LARIPUR RS products are eco-sustainable thermoplastic polyurethanes obtained from renewable raw materials and able to offer a real alternative to synthetically produced ones.

Typically, thermoplastic polyurethanes are synthetized from petroleum-derived raw materials (i.e. diisocyanates, polyols and diols). However, equivalent renewably sourced substances (e.g. vegetable oils) can successfully replace at least a part of those components. The amount of these raw materials in LARIPUR RS grades is very high (up to 70% of the total polyurethane weight), fulfilling the increasing request from the customers for eco-friendly materials.

The aim of using renewably sourced raw materials is to significantly reduce the exploitation of fossil fuel reserves and consequently decrease CO<sub>2</sub> gas emissions, resulting in a considerable reduction of the environmental impact in comparison with traditional polyurethanes.

The main feature of LARIPUR RS family is the capability to combine the highest possible content of renewably sourced raw materials with the same performance level of the classic products. In addition, LARIPUR RS grades exhibit an excellent processability and ease of use, without the need of specific equipment. This means that they can be processed in the same conditions and using the same injection and extrusion machines, moulds and accessories advised for traditional thermoplastic polyurethanes. At the same time, LARIPUR RS also maintain a total recyclability as well as the possibility to add masters and additives such as pigments, anti-blocking and blowing agents, antistatics, etc.

The LARIPUR RS family includes products that are suited to a wide range of applications: footwear (fashion shoes, free time and sport shoes, etc.), ski boots, hoses, profiles, films and production of various technical articles.

In conclusion, the use of LARIPUR RS ensures the possibility to manufacture highperformance items, while contributing significantly to reduce the environmental impact in terms of fossil fuel consumption and greenhouse gas emission.

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### **PROVISIONAL TECHNICAL DATA SHEET**

### LARIPUR RS 8580

# **GENERAL DESCRIPTION** LARIPUR RS 8580 is an eco-friendly polyester-based thermoplastic polyurethane exhibiting excellent mechanical properties. It is suggested for injection moulding of technical items. The theoretical content of carbon deriving from renewable sources is approximately 70% of the total carbon.

### TYPICAL CHEMICAL-PHYSICAL PROPERTIES

Parameter		Typical Value	Unit	Method
Density		1.19	gr/cm <sup>3</sup>	ISO 2781
Shore Hardness		84	А	ISO 7619-1
Abrasion Loss		35	mm <sup>3</sup>	ISO 4649
Tensile Modulus:	50%	5.0		
	100%	6.4	N/mm <sup>2</sup>	ISO 22654
	300%	12.0		
Tensile Strength		45	N/mm <sup>2</sup>	ISO 22654
Elongation at Break		620	%	ISO 22654
Tear Strength		70	N/mm	ISO 34-1

The above reported data do not constitute sales specifications for the material in object.

The properties reported in this Technical Data Sheet are determined on annealed, injection moulded specimens and represent the average of values obtained from a significant number of production lots.

The international standards above indicated are intended as a reference for the execution of the relative tests, whereas the choice of available options and any possible variation are detailed in our respective internal standards.

The informations reported in this Technical Data Sheet are based on our current best knowledge, however, even if we guarantee the quality consistency of our LARIPUR products, we reserve the option to periodically issue updated versions of this Technical Data Sheet and respective sale specifications as well.

The extrusion grade LARIPUR are identified by a specific end code (EG, EA, AE, DP, EM, EF, EP, U, EUV or HFM). This code has to be indicated when ordering those grades.

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STORAGE AND STABILITY	LARIPUR RS 8580 is supplied in regular pelletized form and packaged in 25 kg bags or 500 kg and 1000 kg octabins.					
	LARIPUR RS 8580 must be stored in its original and sealed containers and kept in a dry and well- ventilated place, avoiding the direct sun radiation.					
	The shelf life of LARIPUR RS 8 if stored in its original sealed	580 is of six mont packaging and in p	hs from the date of o proper conditions.	delivery to the final customer,		
SAFETY	The product is not considered dangerous, nevertheless we recommend to read the Materi Safety Data Sheet before handling.					
PROCESSING RECOMMENDATIONS	Before processing, material needs to be dried at 80-90°C for 3 hours, preferably using dehumidifying drier fed by air with a dew point lower than -30°C. Suggested moulding temperature profile:					
		Zone	Temperature			
		Zone 1	185°C			
		Zone 2	190°C			

Zone 3

Nozzle

Being affected by the type of machine used, processing conditions and downstream equipment, the suggested temperature profile has to be considered as just indicative.

195°C

190°C

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