



# LARIPUR<sup>®</sup> Thermoplastic Polyurethane

## Cable & Wire Product Portfolio

Physical Properties	Test Method	Unit	LPR 7560EG	LPR 9060EG	LPR 8860EG	LPR 9060EM	LPR 9060EF	LPR 9060HFM	LPR 5260EG	
Chemical nature			Ether	Ether	Ether	Ether	Ether	Ether	Ether	
Specific Gravity	DIN 53479	gr/cm <sup>3</sup>	1,10	1,12	1,12	1,10	1,14	1,22	1,15	
Shore Hardness	DIN 53505	A/D	77A	86A	86A	88A	87A	89A	50D	
Abrasion Loss	DIN 53516	mm <sup>3</sup>	35	35	35	30	40	50	35	
Tensile Modulus:	DIN 53504	50%	N/mm <sup>2</sup>	3,6	5,3	5,3	5,6	5,4	7,6	10,3
		100%	N/mm <sup>2</sup>	5	7	7,2	7,4	7,2	9,9	12,2
		300%	N/mm <sup>2</sup>	9,1	13,2	14,1	13,5	13,3	13,3	23,5
Tensile Strength	DIN 53504	N/mm <sup>2</sup>	40,7	44,4	52,3	50,2	48,1	34,3	54,8	
Elongation at Break	DIN 53504	%	690	650	540	620	635	615	530	
Tear Strength	DIN 53515	N/mm	55	65	72	72	68	61	110	
Vicat Softening Point	ISO 306	°C	70	80	80	87	100	84	120	
Flammability Test	UL-94	1 mm						V-0		
		2 mm					V-2	V-0	V-2	
		6 mm		V-2	V-2	V-2	V-0	V-0	V-2	

Laripur<sup>®</sup> TPU is widely used as wire and cable jacketing because of its very good mechanical and physical properties.

To meet all these severe requirements, COIM offers a broad selection of polyether based TPU.

Laripur<sup>®</sup> polyether-based TPUs fit to applications requiring low temperature flexibility, resistance to hydrolysis and/or fungus/bacteria growth and good weathering properties.

### Typical Value\*

- This technical note has been written on the base of our present best knowledge, but the above mentioned data have not to be released as a specification for the materials in object.
- Properties reported in this bulletin are determined on annealed specimens obtained by injected test plaques and mostly represent an average of values gathered from a significative number of production lots.
- Even if we guarantee the quality consistency of the Laripur products, we could periodically issue up-dated version of this Technical Bulletin and modify the respective sales specification as well.
- The international standards here indicated have to be intended as a reference to carry out the various tests but the choice of available options and any possible variation are mentioned in our respective internal standards.

LARIPUR<sup>®</sup> TPU

FEATURES:	Low Temperature Flexibility	Standard	Available also with improved UV stability as EUV grade	Low Coefficient of Friction	Halogen free flame retarded	Halogen free flame retarded	High Temperature Resistance
T Glossy/Transparent	T	T	T		T		T
O Low Gloss/Matt				O		O	
EEC food contact approved	EEC	EEC	EEC				EEC
FDA food contact approved	FDA	FDA	FDA				FDA
NSF 61 potable water approved	NSF	NSF					NSF
USP medical Class VI	USP						USP

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# LARIPUR<sup>®</sup> TPU

## Thermoplastic Polyurethane

Polyester, Polycaprolactone and Polyether based products with hardness ranges from 60 Shore A up to 75 Shore D:

- Toughness and Durability - Excellent Abrasion Resistance
- Excellent Low Temperature Flexibility • Resistance to Fuel, Oils, Grease and Fats
- Outstanding Compression Set Properties • Hydrolysis and Microbial Resistance.

### Series 15 and 18 Plasticized Ester

Developed to provide soft touch and flexibility and fast cycle time for injection moulding while maintaining good abrasion resistance and physical properties. Products also available without phthalate based plasticizers.

### Series 20 Standard Ester

Injection Molding grades providing strong resilience and tear resistance, excellent abrasion resistance and good stability in water, solvents and against light and oxidation.

### Series 25 Special Ester

Designed for both injection molding and extrusion of hose, tubes, profiles, belts, films and sheets. Higher resistance to hydrolysis and improved flexibility at low temperatures.

### Series 2102 Polycaprolactone Ester

Polycaprolactone based TPU. Improved elasticity and hydrolysis resistance compared to Special Esters.

### Series 50 Modified Ester

Polyester based TPU coupling high hardness with improved low temperature impact resistance.

### Series 60 and 2103 Ether

High quality polyether based TPU. Improved resistance to hydrolysis and microbial attack with low temperature flexibility and high impact properties.

### Seal Grades

Both polyether and Polycaprolactone based TPUs exhibiting very low compression set values at high temperatures combined with good resistance to oils and chemicals.

### Special Grades

Specially developed TPUs to cover a variety of market and customer needs in specific application.

### LARICOL Thermoplastic Adhesives

A range of Crystalline Thermoplastic Polyurethane Adhesives supplied in pellet form.

Laricol products are designed to provide excellent bond to various substrates including plastics (TPU, PU, EVA, PVC,...), rubber, leather, textiles, wood, etc..

They can be used for solvent solution thermo-reactive adhesives, powder sintering and thermo-adhesive extruded film.



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