



LARTON

Based on branched & linear PPS (Polyphenylene Sulphide)

Key benefits:

- **Excellent stiffness**
- **High continuous use temperature**
- **Very good dimensional stability**
- **Inherently flame retardant**
- **Outstanding chemical resistance**
- **Easy processability**

LARTON is an high performance-engineering thermoplastic with an exceptional degree of inherent thermal stability. **LARTON** (PPS) withstands elevated temperatures for both short-term (up to 260°C) and long-term exposure (at circa 200 - 220°C). In addition, it also exhibits a very good dimensional stability over an extended period of time even in hostile environments, as well as an outstanding chemical resistance (it is one of the most chemically inert thermoplastic materials).

All **LARTON** compounds are inherently flame resistant (UL 94 V-0 ratings @ 1.5 mm thickness) without using flame retardant additives.

PPS is a semi-crystalline polymer and it is mainly used as a compound for injection moulding; such compounds are usually reinforced with glass or carbon fibres, mineral fillers or combinations thereof. **LATILUB** (based on PPS) are complementary self-lubricating grades that exhibit excellent wear resistance and a low coefficient of friction.

It is also worth remembering that **LARTON** can be easily processed by using both conventional thermoplastic injection moulding machines and moulds. The tool temperature should be set at around 140°C in order to achieve the maximum degree of crystallinity in the moulded components, and thus optimal performance.

Furthermore, as a new entry in its already impressive range of branched PPS compounds, LATI is now launching **LARTON L**, a linear Polyphenylene Sulphide - based family that combines the typical properties of PPS with a lighter base resin

colour, with improved colourability.

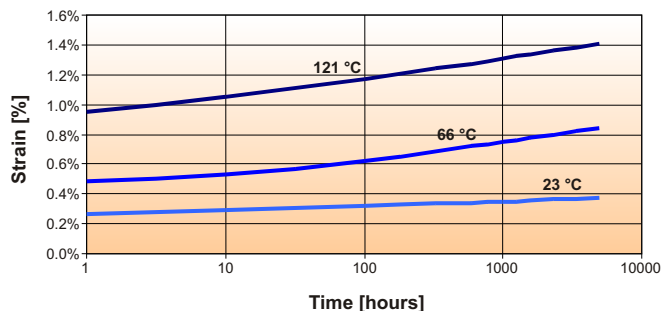
LATI is willing to share with you its expertise in this field, and its T.S. and R&D Teams are at your complete disposal to analyse your requirements and collaborate on project developments.

PROPERTIES (typical values)

	Test Method	Units	Glass fibres		Carbon fibres	Mixed glass fibres and special mineral fillers		Self-Lubricating Products	
			LARTON G/40	LARTON L G/40	LARTON K/30	LARTON L GCE/500	LARTON GCE/650	LATILUB 80-40GRT	LATILUB 80-15T K/30
General									
Density	ISO 1183	g/cm ³	1.65	1.65	1.43	1.82	1.91	1.59	1.50
Shrinkage – along flow	LATI	%	0.30	0.30	0.20	0.40	0.30	0.60	0.20
Shrinkage – across flow	LATI	%	0.60	0.60	0.50	0.60	0.50	0.60	0.50
Mechanical									
Tensile strength at yield	ISO 527	MPa	140	145	185	112	110	50	145
Elongation at break	ISO 527	%	0.8	1	0.7	0.8	0.7	1	0.5
Flexural strength at yield	ISO 178	MPa	172	170	230	150	180	75	220
Flexural modulus	ISO 178	MPa	13000	14000	22000	16000	18000	8200	22000
Notched Izod	ASTM D256	J/m	85	75	48	42	64	17	46
Electrical									
Dielectric strength	ASTM D149	KV/mm	18	18	2	19	19	2	2
Comparative tracking index	IEC 112	V	125	150	<100	200	225	<100	<100
Thermal									
H.D.T. 1.82 MPa	ISO 75	°C	265	269	275	265	270	153	267
Continuous use temperature	UL746B	°C	200	200	200	200	200	200	200
Flammability									
Rating @ 1.5 mm thickness	UL-94	-	V-0	V-0	V-0	V-0	V-0	V-0	V-0

Resins LATI	RTI (°C)
PEEK	200 - 260
PPS	200 - 240
PAI	200 - 240
LCP	210 - 230
PI	200 - 220
PES - PPSU	180 - 190
PEI	170 - 180
PTFE	160 - 180
PSU	150 - 160
PET	140 - 155
HTN	130 - 150
PPA	115 - 140
PBT	120 - 140
PA	110 - 140
PC	120 - 130

LATI PPS 40% Glass Fibres
Creep strain versus time (34.7 MPa)



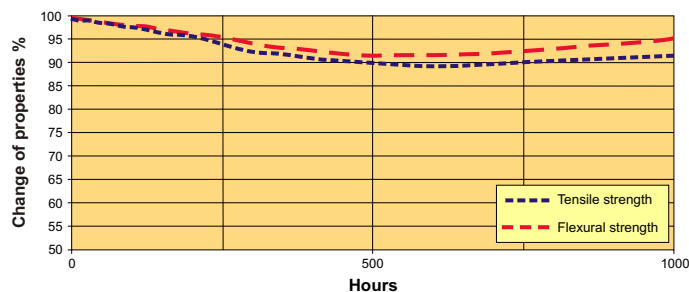
PPS exhibits a good creep resistance at high temperatures too

Resins	LOI (%)
LCP	53
PPS	47
PVC	47
PI	44
PPA*	40
PSU	38
PES - PPSU	36
PEEK	35
PBT*	35
PC*	34
PA*	32
PBT	23

* with FR additives **LATI**

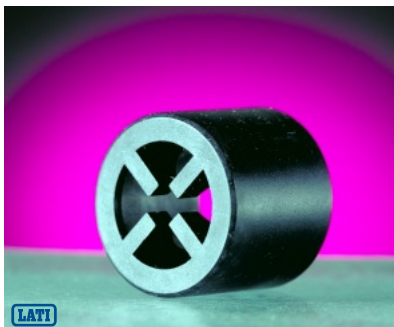
PPS offers one of the highest CUT (Continuous Use Temperature)

LATI Strength Retention of PPS 40% GF
Exposed to test fuel M85 (ASTM D-471) at 120 °C



PPS shows an excellent fuel resistance

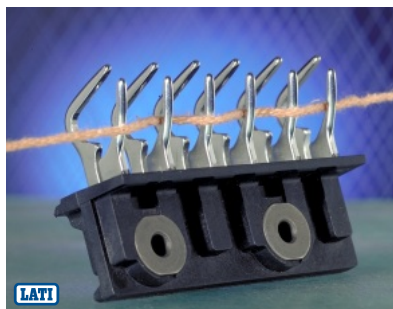
PPS is intrinsically flame retardant. The table shows the Limiting Oxygen Index (typical values) for some thermoplastic materials



Flux valve
in LARTON GCE/600



Bobbin
in LARTON G/40



Special knife for textile machine
in LARTON G/40



Lamp holder for coach dash board
in LARTON GCE/600

Industry Sectors:

- **Automotive** (under-the-hood)
- **Domestic Appliances**
- **Electrical & Electronics**
- **Chemical Industry**
- **Heating, Ventilation, Air-conditioning**
- **Industrial**
- **Lighting**
- ...

Note: should you be interested in receiving a more detailed brochure, just contact our Offices

This document contains information based on average values as obtained from the results of laboratory tests and observations made on our materials. Tested materials were injection moulded, used in their natural colour, and conditioned in compliance with Standard ASTM D 618, procedure A (40 h - 23°C - 50%R.H.). These data refer to our best technical and scientific knowledge at the moment of testing and cannot be used as a basis for the development of applications.

For a better assessment of the materials, you are kindly requested to contact our technical or commercial offices, which are at your disposal and will supply detailed information on the most suitable characteristics for the intended use. With reference to DPR n. 224 dated May 24, 1988 issued in accordance with EC Guide-lines 85/374, LATI Industria Termoplastici S.p.a. declines all responsibility arising from an improper use of the products described in this document.