

Category	Abbreviated norm	Common Appellation	Density (g/cm <sup>3</sup> )	Normal T° C of Use (20'000h)	Recovery humidity (% to sat.)	Coefficient frictional stress (dry)	Other comments
<b>Low performance</b>  ★	HDPE 500	High Polyethylene Density 500	0.95	-30 / 80	0	0.17	Thermal expansion : 0,2 mm/ mL/ °C.
	HDPE 1000	High Polyethylene Density 1000	0.94	-200 / 90	0	0.14	Some dimensions are available only PE 100, 200, ou 300
	PP-H	Polypropylène	0.93	0 / 100	0.20	0.35	
	PVC	Chlorure de polyvinyle	1.45	-10 / 50	0	0.60	
	PMMA	Polyméthacrylate de méthyle (Plexi)	1.20	-30 / 70	0.50	0.50	Amorphous (transparent)



PE pipe connector

Generally, low performance materials are recommended when mechanical stress is low and the cost price is preponderant. However, other properties can also lead us to select them (density, foodgrade certification, specific chemical resistance, detectable metal, etc.).

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<b>Standard Performance</b>  ★★	PA 6	Polyamide 6	1.14	-40 / 90	9.00	0.41	Some dimensions are available only in PA6G (cast)
	PA 66	Polyamide 6 6	1.14	-30 / 110	8.00	0.41	
	POM	Polyoxymethylene	1.42	-50 / 100	0.90	0.32	High shock resistance
	PETP	Polyéthylène téréphtalate	1.39	-20 / 100	0.50	0.15	Very good resistance dimensional
	PC	Polycarbonate	1.20	-100 / 120	0.20	0.50	Amorphous (transparent)



POM Shutter

La plupart des plastiques dits standards peuvent aussi exister avec l'addition de composés (chimiques ou charges) permettant de modifier leurs performances de base. Les charges les plus courantes : verre, MOS2, Huile.

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<b>High performance</b> ★ ★ ★	PTFE	Polytetrafluoroethylene	2.25	-200 / 260	0	0.09	Excellent resistance to hydrolysis
	PVDF	Polyvinylidene fluoride	1.78	-50 / 145	0	0.33	Mechanical perf. > PTFE
	PPS	Phenylene Polysulfide	1.35	-30 / 220	0.10	0.50	Cost < PEEK
	PEEK	Polyetheretherketone	1.31	-50 / 250	0.45	0.30	Intrinsic resistance to flame

**High performance thermoplastics generally have the following advantages:**

- Higher operating temperature (> 150 ° C continuously)
- Better chemical resistance
- High resistance to hydrolysis

Some also offer excellent dimensional stability (PPS, PEEK).



*PEEK sterilizable connector*

We transform a large number of materials not listed above such as: Bakelites, expanded PVC, Polyurethanes, ABS, Polyimides (PAI). Moreover, most of the thermoplastics in this document exist in different colours.

Do not hesitate to contact us for a customized study and to know the availability of our large stock.



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