

#### **NYLONS**

Nylon is a strong, stiff engineering plastic with outstanding bearing and wear properties. Nylon is frequently used to replace metal bearings and bushings often eliminating the need for external lubrication. Other benefits include a reduction in part weight, less operating noise, and decreased wear on mating parts.

### Nylon is widely used for

■ Bearings and bushings
■ Gears
■ Wear pads
■ Packaging machinery parts
■ Food processing machinery parts
■ Rollers
■ Seals and gaskets

## Performance characteristics

■ Excellent bearing and wear properties
■ Strong and stiff
■ Good chemical resistance
■ Easy to machine
■ Reduced noise, weight, and wear of mating parts

#### TYPICAL PROPERTIES OF NYLON

	UNITS	ASTM TEST	EXTRUDED NYLON 6/6	CAST NYLON 6	MD-FILLED CAST NYLON 6	OIL-FILLED CAST NYLON 6
Tensile strength	psi	D638	12,400	10,000 - 13,500	10,000 - 14,000	9,500 - 11,000
Flexural modulus	psi	D790	410,000	420,000 - 500,000	400,000 - 500,000	375,000 - 475,000
Izod impact (notched)	ft-lbs/in of notch	D256	1.2	0.7 - 0.9	-	1.4 - 1.8
Heat deflection temperature @ 264 psi	°F	D648	194	200 - 400	200 - 470	200 - 400
Maximum continuous service temperature in air	°F		210	230	-	230
Water absorption (immersion 24 hours)	%	D570	1.20	0.60 - 1.20	0.05 - 1.40	0.50 - 0.60
Coefficient of linear thermal expansion	in/in/°Fx10 <sup>-5</sup>	D696	4.5	5.0	-	5.0
Light transmittance			0.28	0.22	0.30	0.12

# **VALE PLASTICS**

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