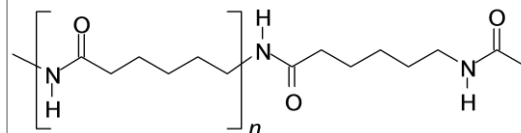


## Polyamide (PA or nylon)

### SPECIFICATIONS

Property	Spec	Value
Hardness	DIN 53505	85D
Density	DIN 53479	1.41 g/cm <sup>3</sup>
Tensile Strength	DIN 53504	71 N/mm <sup>2</sup>
Ultimate Elongation	DIN 53504	200%
Compression Strength (10% deformation @ 73° F)	ASTM D695	13,500-16,000 psi
Minimum Service Temp.		-35 °C
		-31 °F
Maximum Service Temp.		110 °C
		212 °F
Color		Cream



### DESCRIPTION

MLO2 is a PA or nylon material with hardness 85 Shore D. Polyamide (PA or nylon) have amide functional group linkages -CO-NH-. The amide group has strong affinity for hydrogen bonding with other amide groups and with water from the external environment. The two major commercial nylon materials used in seal industries are nylon 6 and nylon 6,6. They differ by whether one or two raw material components are used in producing nylon. In many aspects, they are interchangeable in applications. Both nylon thermoplastics are flexible and allowing for easy crystallization. This capability is even enhanced by the strong affinity for polar amide groups of adjacent chain sections. Less amide content in the polymer means less tendency for nylon to bind water. Nylon's lubrication can be further improved by incorporating molybdenum disulfide (MoS<sub>2</sub>). The mechanical strength of PA can be increased by reinforcement with glass fiber. PA articles are normally molded by injection, extrusion or compression processes.