



NYLON

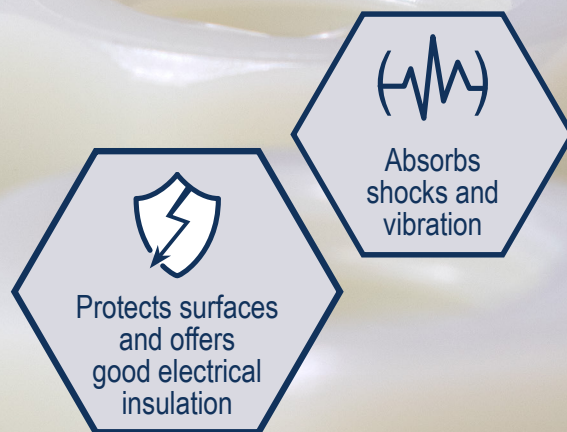


NYLON



POLYAMIDE PA6, PA6.6, 66

Natural Nylon



UNC HEX SET SCREW  BS66PC NYLN ASME B18.2.1 HEC	METRIC HEX SET SCREW  BS66PCM NYLN DIN 933	UNC HEX BOLT  BH66PC NYLN HEC	METRIC HEX BOLT  BH66PCM NYLN DIN 931	UNC CSK SLOT SCREW  MS66CS NYLN HEC	METRIC CSK SLOT SCREW  MS66CSM NYLN DIN 963	METRIC CHEESE SLOT SCREW  MS66ESM NYLN DIN 84
UNC ROUND SLOT SCREW  MS66OS NYLN HEC	UNC SLOT FILLISTER SCREW  MS66LS NYLN HEC	METRIC WING SCREW  MS66PWM NYLN DIN 316	BINDER HEAD PHILLIPS SCREW  MS66BPM NYLN DIN 7985	UNC HEX SOCKET GRUB SCREW  SG66PC NYLN HEC	METRIC HEX SOCKET GRUB SCREW  SG66PCM NYLN DIN 913	SLOTTED SOCKET GRUB SCREW  SG66PSM NYLN DIN 551



RESISTANCE CHART

Material / Substances	PA6 6.6 / 66 Polyamide Nylon	PC Polycarbonate	PVDF Polyvinylidene Fluoride	PP Polypropylene	POM Acetal	PE - LD Polyethylene Low-density	PE - HD Polyethylene High-density
Cold water							
Hot water							
Diluted acid							
Concentrated acid							
Oxidised acid							
Hydrofluoric acids							
Diluted potassium							
Concentrated potassium							
Inorganic bases							
Dry halogen							
Hydrocarbons							
Hydrocarbons (chlorinated)							
Alcohols							
Ester							
Ketone							
Ether							
Aldehyde							
Amino acids							
Organic acids							
Aromatic hydrocarbons							
Petrol							
Mineral oils							
Greases and oils							
Hydrocarbons (non-saturated chlorinated)							
Oil of turpentine							
Humidity absorption % to ASTM d 570	1.3 - 1.9	0.1 - 0.2	0.03	0.01 - 0.03	0.22 - 0.25	< 0.01	< 0.01

 Good Resistance

 Limited Resistance

 No Resistant



NYLON



METRIC SOCKET HEAD CAP SCREW SH66PCM NYLN DIN 912	UNC ALLTHREAD ROD AN66PC NYLN HEC	METRIC ALLTHREAD ROD AN66PCM NYLN DIN 975	UNC HEX NUT NH66P NYLN HEC	METRIC HEX NUT NH66PCM NYLN DIN 934	UNC WING NUT NW66PC NYLN HEC	KEY NYLN NYLON NATURAL PE UV POLYETHYLENE BLK UV RESISTANT NY UV NYLON BLACK
METRIC WING NUT NW66PCM NYLN DIN 315	UNC DOME HEX NUT ND66P NYLN HEC	UNC DOME HEX NUT ND66PC NYLN HEC	METRIC DOME HEX NUT ND66PCM NYLN DIN 1587	METRIC DOME HEX NUT ND66PAM NYLN Form A	METRIC HEX FLANGE NUT NF66PCM NYLN HEC	SPACER ROUND SR66P NYLN HEC
METRIC SCREW INSULATOR WB66PIM NYLN HEC	METRIC ANTI-LOSS WASHER WR66PAM NYLN FLAT ROUND + TAPER	METRIC CUP WASHER WR66PCM NYLN HEC	METRIC HUBO™ WASHER WR66PHM NYLN LOCKING + SEALING	IMPERIAL FLAT ROUND WASHER WR66P NYLN HEC	METRIC FLAT ROUND WASHER WR66PM NYLN HEC	METRIC FLAT ROUND WASHER WR66PTM NYLN DIN 125
METRIC MUDGUARD WASHER WR66PMM NYLN DIN 9021	METRIC HOLDING WASHER WR66POM NYLN HEC	METRIC BUSHING WASHER WB66PSM NYLN WITH SHOULDER	METRIC FLAT ADHESIVE WASHER WR66PDM NYLN HEC	Adhesive Washer Adhesive secures the washer's position and keeps it from moving around.		



NYLON 66 BLACK UV STABLE WITH

Carbon Black



Improves resistance to UV and external weathering

METRIC FINISHING WASHER RCC



WR66UCM

NY UV
UV STABLE
HEC

METRIC MUDGUARD WASHER



WR66UMM

NY UV
UV STABLE
DIN 9021

METRIC FLAT ROUND WASHER



WR66UM

NY UV
UV STABLE
HEC

ROUND SPACER



SR66U

NY UV
UV STABLE
HEC

METRIC HEX THIN NUT



NL66UCM

NY UV
UV STABLE
HEC

PLUG HEAD COVER FOR HEX SCREW

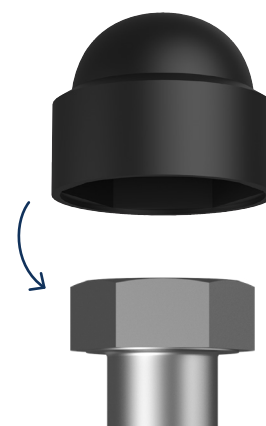


PHCPEUM

PE UV
HEC / SUIT AS1110

Plug Head Cover

Polyethylene resists acids, greases and oils, and protects the bolt head from corrosion and discolouring. Plug head cover can be used for **AS1110** hex bolts and set screws.





Nylon Fasteners

Types of Polymer

Glass Fibre Reinforced Nylon (GFR PA6.6):

Same properties as PA6.6 with enhanced mechanical properties of tensile strength, fatigue strength, impact strength, friction and abrasion resistance.

Polypropylene (PP)

Polypropylene is very resistant to fatigue and complies with food standards. A major use is in piping systems where rigidity and resistance to corrosion and chemical leaching are required.

Polyethylene (PE)

Is the most widely used plastic in the world with annual production of approximately 80 million tonnes and is used extensively in packaging applications such as foam, shrink wrapping and plastic bags.

Polycarbonate (PC)

It is a very durable transparent material with high impact resistance but low scratch resistance.

Polyvinylidene Fluoride (PVDF)

Is a highly non-reactive thermoplastic fluoropolymer. It has excellent resistance to solvents and acids.

Acetal (POM)

Acetal resins are odourless, tasteless and non-toxic. Acetal is widely used in the automotive, electrical, machinery, equipment and watch making industries.

Polyamide Nylon (PA, PA6.6, 66)

Is the standard polymer used in the Hobson range of fasteners and is recognised worldwide for being the most suitable material for fasteners. It offers excellent filling qualities and hence is easily moulded even into very difficult long shapes such as threaded rod.

It provides good toughness, tensile strength and resistance to creep, particularly in the high temperature range. Nylon has excellent wear properties, low coefficient of friction and exceptional chemical resistance to aromatic hydrocarbons, greases and oils.

Nylon is a hygroscopic material which has a tendency to absorb water or moisture from the surrounding environment. The amount of absorption will depend on the environmental conditions. When water or moisture is absorbed by Nylon, it behaves like a plasticizer in plastics reducing the tensile strength, stiffness; and increasing elongation, impact strength and energy absorbing characteristics.

Outdoor weathering can be improved by the addition of carbon black. Nylon will perform well in long range service in most applications. Nylon is a translucent to off white in colour. Depending on the raw material used, there will always be slight colour differences from bright white to a very dull off white to light grey.



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Bolt Tension | Anti-Vibration | Product Reliability | Traceability

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Nylon Fasteners

Nylon Properties

PHYSICAL PROPERTIES	UNITS	PA6.6	GFR PA6.6	PVDF	POM	PP	PC
Density	g/cm ³	1.14	1.29	1.76	1.4	0.9	1.2
Humidity Absorption	%	2.60	1.80	0.04	0.28	0.1	0.1

THERMAL PROPERTIES	UNITS	PA6.6	GFR PA6.6	PVDF	POM	PP	PC
Melt Temperature	°C	250	255	170	165	170	230
Combustibility	UL94	V2	HB	V0	HB	HB	V0/V2
Working Temperature	°C	-30 to +100	-40 to +130	-40 to 110	-40 to +95	-30 to 100	-100 to +120
Peak Temperature	°C	150	180	150	140	140	130

ELECTRICAL PROPERTIES	UNITS	PA6.6	GFR PA6.6	PVGF	POM	PP	PC
Transversal Resistance	Ohm.cm	10 ¹²	10 ¹⁵	10 ¹⁴	10 ¹⁵	10 ¹⁷	10 ¹⁶
Dielectric Strength	kV/mm	30	60	20	20	50	-

MECHANICAL PROPERTIES	UNITS	PA6.6	GFR	PVDF	POM	PP	PC
Tensile UTS	MPa	60	125	40	60	20	60
Modulus Of Elasticity	MPa	1100	5300	2300	3000	1000	2400
Hardness	Shore D	80	-	78	83	73	85

V0= Self Extinguishing, V1= Non-Flamable, V2 = Flamability Difficult, HB = Slow Burning

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