

# PA66 - Polyamide66



A crystalline engineering plastic.  
A material with high strength and low friction coefficient.  
Excellent wear resistance, oil resistance, alongside self extinguishing properties(UL94V-2).  
Unfortunately not resistant to strong acids. High water absorption needs to be factored in for its environmental usage.

Continuous Use Temperature 95°C/203°F  
Flame Retardant Grade UL94 V-2

Torsional fracture torque unit: Nm

| Head Type                | M2 | M3   | M4   | M5   | M6   | M8   | M10  | M12   |
|--------------------------|----|------|------|------|------|------|------|-------|
| Hexagon Head             |    | 0.15 | 0.4  | 0.75 | 1.28 | 2.85 | 6.25 | 10.25 |
| Socket Hex Head          |    | 0.13 | 0.23 | 0.68 | 1.08 | 2.38 | 2.53 | -     |
| Slotted Countersunk Head |    | 0.1  | 0.33 | 0.75 | 0.75 | 1.78 | 2.33 | -     |
| Cross Countersunk Head   |    | 0.15 | 0.35 | 0.68 | 1.28 | 1.95 | 4.53 | -     |

Tensile Fracture Load : N

| Head Type    | M2 | M3 | M4  | M5  | M6  | M8   | M10  | M12  |
|--------------|----|----|-----|-----|-----|------|------|------|
| Hexagon Head |    |    | 416 | 662 | 578 | 1767 | 3463 | 4022 |
|              |    |    |     |     |     |      |      |      |
|              |    |    |     |     |     |      |      |      |
|              |    |    |     |     |     |      |      |      |

➡ **The flash (end stump) of the bolt length (L) is less than or equal to 5%**  
If bolts are used with nuts, we recommend using bolts and nuts of the same material.

➡ **Table contains reference values. These are not guaranteed**  
Please use a torque wrench for tightening. The recommended tightening torque is 50% of the breaking torque.



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## Polyamide 66 (PA666) Properties

| Property                               | Nominal Value | Unit              | Test Method     |
|--|---------------|-------------------|-----------------|
| Tensile Modulus (dry)                  | 3600          | MPa               | ISO 527-1/-2    |
| Tensile Modulus (cond)                 | 1600          | MPa               | ISO 527-1/-2    |
| Yield Stress (dry)                     | 85            | MPa               | ISO 527-1/-2    |
| Yield Stress (cond)                    | 50            | MPa               | ISO 527-1/-2    |
| Yield Strain (dry)                     | 4             | %                 | ISO 527-1/-2    |
| Yield Strain (cond)                    | 15            | %                 | ISO 527-1/-2    |
| Charpy Impact Strength (+23°C)         | 75            | kJ/m <sup>2</sup> | ISO 179/1eU     |
| Charpy Notched Impact Strength (+23°C) | 4             | kJ/m <sup>2</sup> | ISO 179/1eA     |
| Melting Temperature                    | 260           | °C                | ISO 11357-1/-3  |
| Deflection Temp. under Load (1.8 MPa)  | 70            | °C                | ISO 75-1/-2     |
| Deflection Temp. under Load (0.45 MPa) | 210           | °C                | ISO 75-1/-2     |
| Oxygen Index                           | 35            | %                 | ISO 4589-1/-2   |
| Burning Behavior (1.5mm)               | V-0           |                   | IEC 60695-11-10 |
| Volume Resistivity (dry)               | 1E11          | Ohm*m             | IEC 62631-3-1   |



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