

# Material Data Sheet

## Alloy 910

Alloy 910 has a combined tensile strength higher than the strongest co-polyesters, the durability of Nylons, a low shrinkage factor, a vast range of chemical resistance and a 82°C working range.

As with all nylons, warp can be a problem, our N1 support helps to control it, often brim is also required, depending on the geometry of the part.

### Mechanical Properties\*

| Type                | Test Method | Imperial   | Metric        |
|---------------------|-------------|------------|---------------|
| Tensile Modulus     | ISO 527     | 72,932 psi | 502.84844 Mpa |
| Tensile Stress      | ISO 527     | 8,100 psi  | 55.84753 Mpa  |
| Elongation at break | ISO 527     | 32%        | 32%           |

### Thermal Properties

|                                   | Test Method | Imperial | Metric |
|-----------------------------------|-------------|----------|--------|
| Pyrolysis - Thermal degradation   |             | 660.2°F  | 349°C  |
| UL Flammability                   | UL 94 HB    |          | Yes    |
| UL Flammability - 1.5mm thickness | UL 94 V2    |          | Yes    |

### Physical Characteristics & Features

| Type                         | Imperial  | Metric             |
|------------------------------|-----------|--------------------|
| Density                      |           | gr/cm <sup>3</sup> |
| Shrink                       | 0.0033%   | 0.0033%            |
| CNC Finishing & hole tapping | Excellent |                    |

\*Test parts have been 3D printed according to XZ orientation, using 100% infill, 0.2mm layer thickness

The information supplied is supplied as informative: user should use it as material selection tool and/or comparison with available materials.

Printed part performance may differ from published value, depending on part orientation, printing parameters & environmental conditions.

User must validate suitability of the printed part and its lawful to be used as desired: no warranty can be made (express or implied) to any use of Plural materials.

We reserve the right to improve our polymer formulations and/or revise our technical data.