

## Technical Data Sheet

### 3D-Fuel ASA

### Filament

#### General Information

3D-Fuel™ Workday ASA is the ideal filament for outdoor and automotive applications. Workday ASA has superior UV stability, high weather resistance, chemical resistance, and exceptional print quality. Workday ASA is a high-quality material designed specifically for 3D printing applications. It is a low warp, low odor, durable material for outdoor applications. Best suited for outdoor applications where weather, UV, and temperature resistance are needed.

#### Printing Information

ASA is used for high strength applications and is a petroleum-based product that holds up very well in outside conditions. ASA requires a heated bed and works best with an enclosed print area. ASA can produce some off-gassing so it is recommended that you use it in a well-ventilated area or in an enclosure with an appropriate filtration system.

- Low warp
- Low odor
- Heat resistant
- UV light resistant
- Durable
- Mildly flexible
- can be sanded or smoothed with additional processing

Check your printer for compatibility before ordering.

- Available in 1.75mm and 2.85mm
- Print Temperature: 230°C - 260°C
- Bed Temp: 110°C
- Bed material: PEI, Buildtak, or bare glass + hair spray
- 1 Kg Spool

#### Storage

Like all of our filaments, ASA filament comes in a vacuum-sealed resealable bag. In order to prevent the filament from absorbing moisture from the air, when the spool is not in use, place it back in the bag and seal it.

#### Values

Benefits of using ASA filament include increased strength, durability, and UV deflection.

#### PROPERTIES OF 3D-FUEL ASA

Properties	Test Method	Test Condition	Unit	3D-Fuel ASA
<b>Physical</b>				
Density	ISO 1183	23°C	kg/m <sup>3</sup>	1060
<b>Rheology</b>				
Melt Flow Index	ISO 1133	220°C, 10kg	g/10min	17
<b>Mechanical</b>				
Tensile Strength	ISO 527	50mm/min	MPa	40
Tensile Elongation	ISO 527	50 mm/min	%	> 10
Tensile Modulus	ISO 527	1 mm/min	MPa	1900
Flexural Strength	ISO 178	2 mm/min	MPa	60
Flexural Modulus	ISO 178	2 mm/min	MPa	1870
Charpy Impact Strength (Notched)	ISO 179/1eA	23°C/50%RH	kJ/m <sup>2</sup>	16
<b>Thermal</b>				
Deflection Temperature Under Load	ISO 75	1.8MPa	°C	80
Glass Transition Temp			°C	105
<b>Flammability</b>				
Flammability	UL 94	-	-	HB
<b>Appearance</b>				
Glossiness		Incident Angle 60°	%	95