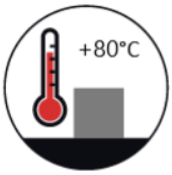
Buddy3D

Product card

ASA HT

high UV resistance



permissible continuous working temperature over 80°C

good aging and wear resistance

good electrical insulating properties

1. GENERAL INFORMATION ABOUT THE PRODUCT

A material similar in parameters and behavior to ABS. It is characterized by increased resistance to UV, obtained by replacing butadiene with acrylic rubber. Well suited for applications requiring good weather resistance.

Main ASA HT features:

- good resistance to weather conditions
- decent mechanical strength, stiffness, and hardness
- increased temperature resistance
- high UV resistance
- permissible continuous operation temperature over 80°C
- good electrical insulation properties
- good resistance to aging

2. TECHNICAL PARAMETERS

CHARACTERISTICS	TEST METHOD	TEST CONDITIONS	IU	VALUE
	ISO			
PHYSICAL				
Density	ASTM D792	–	g/cm^3	1.07
MECHANICAL				
Tensile strength, yield	ISO 527	50 mm/min	MPa	47
Tensile strength, break	ISO 527	50 mm/min	MPa	33
Tensile Elongation	ISO 527	50 mm/min	%	20
Flexural Strength	ISO 178	2 mm/min	MPa	65
Flexural Modulus	ISO 178	2 mm/min	GPa	2.1
Izod Impact Strength	ISO 180/1A	23 °C	kJ/m^2	12
Izod Impact Strength	ISO 180/1A	-30 °C	kJ/m^2	5
Charpy Impact Strength	ISO 179	23 °C	kJ/m^2	12.3
Charpy Impact Strength	ISO 179	-30 °C	kJ/m^2	6

THERMAL				
Vicat softening point	ISO 306	1 Kg,50°C/hr	°C	110
Vicat softening point	ISO 306	5 Kg,50°C/hr	°C	99
Heat Distortion Temperature, Unannealed	75/A	1.8 MPa	°C	86
Heat Distortion Temperature, Annealed	75/A	1.8 MPa	°C	105

Tests have been done at 23°C if it's not marked differently.

3. RECOMMENDATION OF PRINTING

Behavior similar to ABS can be expected and this profile should be taken as a starting point. On short and/or steel heads a higher temperature may be required to provide sufficient energy to the material. A closed chamber is highly recommended.

Recommended parameters of printing:

Hotend temperature	240 – 260 °C
Bed temperature	100 °C
Print speed	< 300 mm/s

4. SAFETY NOTES

Exhaust fan is recommended.
Air filters in printer is recommended.
ABS needs to be used only in well ventilated conditions.
Inhaling fumes generated during the printing must be avoided.

Generating fumes during the printing depends mainly on printing temperature. In case of visibly raising emission level, the printing needs to end. Check the hotend temperature and efficiency of the control system before using it next time.

In proper using conditions, the product doesn't endanger health.

It's forbidden to set fire or exceed decomposition temperature!

Decomposition of ASA HT is typically over 300 °C.
Main ingredient of decomposition is styrene.

Detailed safety information available in SDS.