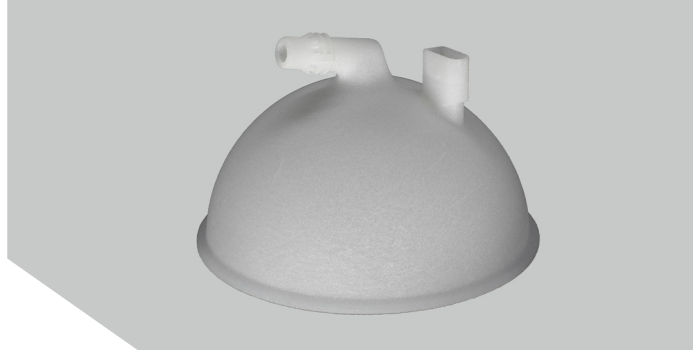


## SELECTIVE LASER SINTERING

# PAX NATURAL

[Supplier Data Sheet: DuraForm PAX Natural](#)

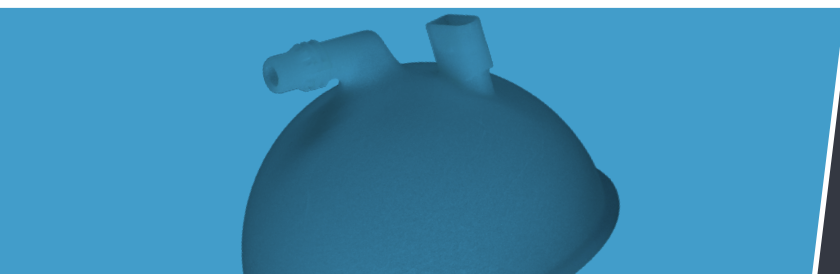


## PRODUCT DESCRIPTION

PAX Natural is a versatile polyamide which is characterised by excellent toughness and flexibility in any direction, including the z plane. The material possesses great long term stability and durability and can be used to produce both prototyping as well as end-use parts. Parts with Vapour Smooth finish presents a great, smooth surface, close to that of injection moulded plastics, and translucency.

## APPLICATIONS

The material is very versatile, so applications range from living hinges and snap fits to fixtures, enclosures as well as orthotics. Depending on the part's actual wall thickness, vapour smoothed products are translucent, which opens up various applications like liquid reservoirs, where liquid visualisation is involved.



## KEY PRODUCT BENEFITS

- Excellent toughness and durability
- High impact and high elongation
- Long-term stability

## PROPERTIES

PROPERTY	TEST METHOD	VALUE (STANDARD)	VALUE (VAPOUR SMOOTH)
Colour	-	Natural White	Natural White
Sintered Density*	ASTM D792	1,03 ± 0,02 g/cm <sup>3</sup>	1,03 ± 0,02 g/cm <sup>3</sup>
Surface Roughness**	DIN EN ISO 4287	Ra = 10-30 µm; Rz = 60-140 µm	Ra = 5-10 µm; Rz = 15-30 µm
E-Module (x-y-z plane)	DIN EN ISO 527, test speed 50mm/min	1300 ± 200 MPa	1300 ± 200 MPa
Tensile strength (x-y-z plane)		40 ± 5 MPa	40 ± 5 MPa
Elongation at break (x-y plane)		>60%	>100%
Elongation at break (z plane)		>20%	>30%
Elongation at yield (x-y-z plane)		5 ± 2%	15 ± 2%
Heat deflection temperature @ 0,46 MPa*	ASTM D648 Test Method A	105 ± 5 °C	105 ± 5 °C
Heat deflection temperature @ 1,82 MPa*		42 ± 2 °C	46 ± 2 °C
UL Flammability*	UL94	HB	HB

\*From supplier data sheet

\*\*Surface roughness may vary depending on orientation

## TOLERANCES

For well-designed parts, tolerances of ± 0.30mm plus 0.002mm/mm can typically be achieved. Note that tolerances may change depending on part geometry, and mentioned values can only be achieved with parts smaller than 200mm.