Product Information

Ultrason® E

2020 P

07/2017

PESU

BASF
We create chemistry

Product description

Polyethersulfone flakes, e.g. for membrane applications, coatings and membranes. The product is soluable in N-Methylpyrrolidone (NMP) and N,N- Dimethylacetamide. The product is not developed for injection moulding. Abbreviated designation according to ISO 1043-1: PESU

Physical form and storage

Ultrason® flakes are supplied in bags and octabins. The bulk density ranges between 200 and 300 g/l. Provided the packaging remains undamaged, Ultrason® can be stored indefinitely. Ultrason® flakes absorb moisture very rapidly. Therefore, the flakes need to be dried at least 4h at 130 °C to 150 °C in a vacuum or dry air drier prior to processing.

Product safety

From our experience and information, proper treatment and reasonable use of the product will not have any health hazardous effects. In view of the high temperatures involved in processing Ultrason®, great care must be exercised even more than for other thermoplastics- in handling the machinery, molds, moldings and residual melts. If there are concerns or doubts on the thermal capacity and limits, the machinery manufacturer should be consulted
If the normal precautions are taken and the upper temperature limit, i.e. 390°C, is not exceeded, no health hazardous vapors are formed while Ultrason® is being processed. In common with all other thermoplastics, Ultrason® decomposes on exposure to excessive heat. The figures laid down for the maximum allowable dust concentrations (e.g. MAK value in Germany) must be met in further processing.
The work place must be well ventilated, preferably by means of an extraction system installed above the barrel unit. Irrespective of this, all precautions relating to accident prevention must strictly be taken.

Note

BASF SE
67056 Ludwigshafen, Germany

Ultrason® E 2020 P

Product Information

Typical values for uncoloured product at 23 °C[1)]	Test method	Unit	Values[2)]
Properties			
Polymer abbreviation	-	-	**PESU**
Viscosity number (in 0,01 g/ml Phenol/1,2, ortho-Dichlorbenzol, 1:1)	ISO 307, 1157, 1628	cm^3/g	**56**
Glass transition temperature, DSC (10°C/min)	ISO 11357-1/-2	°C	**225**
Moisture absorption, equilibrium 23°C/50% r.h.	similar to ISO 62	%	**1.00**
Apparent density	ISO 60	g/cm^3	**0.25**
Mechanical properties			
Tensile modulus [3)]	ISO 527-1/-2	MPa	**2650**
Yield stress, 50 mm/min [3)]	ISO 527-1/-2	MPa	**85**
Yield strain, 50 mm/min [3)]	ISO 527-1/-2	%	**6.9**
Charpy unnotched impact strength (23°C) [3)]	ISO 179/1eU	kJ/m^2	**N**
Charpy notched impact strength (23°C) [3)]	ISO 179/1eA	kJ/m^2	**6.5**
Thermal properties			
HDT A (1.80 MPa)	ISO 75-1/-2	°C	**205**
Molecular weights			
Molecular weight Mw (GPC in DMAc, PMMA standard)	-	g/mol	**48000**
Mw/Mn (GPC in DMAc, PMMA standard)	-	-	**2.7**

Footnotes
1) If product name or properties don't state otherwise.
2) The asterisk symbol '*' signifies inapplicable properties.
3) measured at test specimen, prepared from granules

BASF SE

67056 Ludwigshafen, Germany