



Desmopan 453 DPS041

TPU

Covestro Deutschland AG

- Injection molding grade
 - grease and oil-resistant
 - hydrolysis-stabilised
 - low compression set
 - good wear resistance
- Application:
- Injection molded engineering parts
 - Automotive engineering
 - Coupling elements

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Stress (10% Elongation)	7.2	MPa	ISO 527
Stress at 100% Elongation	16.6	MPa	ISO 527
Stress at 300% Elongation	28	MPa	ISO 527
Stress at Break TPE	40	MPa	ISO 527
Strain at Break TPE	>300	%	ISO 527
Compression Set under constant strain, 70 °C	25	%	ISO 815
Tear strength	110	kN/m	ISO 34-1
Abrasion resistance	30	mm ³	ISO 4649
Shore Hardness A (15s)	97	-	ISO 868
Shore Hardness D (15s)	51	-	ISO 868

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1230	kg/m ³	ISO 1183

Processing Recommendation Injection Molding	Value	Unit	Test Standard
Pre-drying - Temperature	110	°C	-
Pre-drying - Time	1 - 2	h	-
Processing humidity	≤0.05	%	-
Melt temperature	220 - 240	°C	-
Mold temperature	20 - 40	°C	-

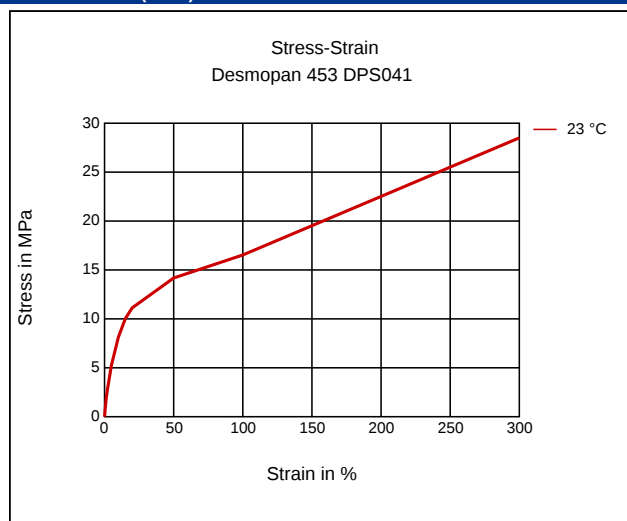
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Diagrams

Stress-Strain (TPE)



Characteristics

Processing

Injection Molding

Additives

Release agent

Delivery form

Pellets

Injection Molding

PREPROCESSING

Max. water content: 0.05 %

Max. drying temperature: 110 °C

Drying time:

Dry air dryer 1-2 h

PROCESSING

Melt temperature: 220-240 °C

Mold temperature: 20-40 °C

Other Extrusion

Preprocessing

Max. Water content ≤0.05 %

Drying temperature 70-110 °C

Dry air dryer 1-2 h

Profile extrusion

Preprocessing

Max. Water content ≤0.05 %

Drying temperature 70-110 °C

Dry air dryer 1-2 h