OnFlex™ AF 7215-70 B

Thermoplastic Elastomer

Key Characteristics

Product Description

OnFlex™ AF 7215-70 B is an easy processing TPE designed for a variety of automotive applications.

- Excellent surface finish
- Good adhesion to polypropylene
- Excellent performance in static mechanical parts such as seals & grips, panel fasteners, plugs, clips and cable clamps.
- Improved UV stability

General			
Material Status	• Commercial: Active		
Regional Availability	• Asia Pacific	• Europe	• North America
Features	• Good Processability		
Uses	• Automotive Applications • Fasteners	• Gaskets • Overmolding	• Plugs
RoHS Compliance	• RoHS Compliant		
Appearance	• Black		
Forms	• Pellets		
Processing Method	• Injection Molding		

Technical Properties [1]

Physical	Typical Value (English)	Typical Value (SI)	Test Method
Density			
-- [2]	0.990 g/cm³	0.990 g/cm³	ISO 1133
-- [3]	0.990 g/cm³	0.990 g/cm³	ASTM D792
Molding Shrinkage - Flow [4]			Internal Method
0.0787 in (2.00 mm), Injection Molded	0.014 in/in	1.4 %	
Molding Shrinkage - Across Flow [4]			Internal Method
0.0787 in (2.00 mm), Injection Molded	0.012 in/in	1.2 %	
Elastomers	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Tensile Strength			
Break [2]	1380 psi	9.50 MPa	ISO 37
Break [3]	1160 psi	8.00 MPa	ASTM D412
Tensile Elongation			
Break [2]	700 %	700 %	ISO 37
Break [3]	700 %	700 %	ASTM D412
Tear Strength			
-- [2]	206 lbf/in	36.0 kN/m	ISO 34-1
-- [3]	189 lbf/in	33.0 kN/m	ASTM D624
Compression Set			
73°F (23°C), 72 hr [2]	30 %	30 %	ISO 815
73°F (23°C), 72 hr [3]	31 %	31 %	ASTM D395
158°F (70°C), 22 hr [2]	41 %	41 %	ISO 815
158°F (70°C), 22 hr [3]	45 %	45 %	ASTM D395
212°F (100°C), 22 hr [2]	59 %	59 %	ISO 815

Hardness	Typical Value (English)	Typical Value (SI)	Test Method
Durometer Hardness			
Shore A, 3 sec [2]	70	70	ISO 868
Shore A, 10 sec [3]	67	67	ASTM D2240
Additional Information	**Typical Value (English)**	**Typical Value (SI)**	**Test Method**
Weather Resistance [5]	expected to pass PV 3929	expected to pass PV 3929	Internal Method

Processing Information

Injection	Typical Value (English)	Typical Value (SI)
Suggested Max Regrind	20 %	20 %
Rear Temperature	320 to 370 °F	160 to 188 °C
Middle Temperature	350 to 380 °F	177 to 193 °C
Front Temperature	370 to 410 °F	188 to 210 °C
Nozzle Temperature	370 to 420 °F	188 to 216 °C
Mold Temperature	86 to 140 °F	30 to 60 °C
Injection Rate	Fast	Fast
Back Pressure	0.00 to 120 psi	0.00 to 0.827 MPa
Screw Speed	40 to 100 rpm	40 to 100 rpm

Notes

[1] Typical values are not to be construed as specifications.

[2] Europe

[3] China

[4] Sign convention: Positive shrinkage factor: Ejected part is smaller than the mould cavity.
Shrinkage after processing is dependent on tool design, wall thickness and processing conditions.
Due to the multitude of factors influencing shrinkage during the processing users should only treat this as a guide and should make their own assessment.
Generally, low processing temperatures will cause an increase in shrinkage of up to 1% (direction of flow). Part geometry may further influence shrinkage by gradually releasing strain.
This may be accelerated by the annealing of parts, such as for 1hr at 80 °C.

[5] OnFlex AF 7215-60 B (60Sh A; black) as part the of the AF-range has been tested according waethering test PV 3929. It has successfully passed the test time of 1500h.

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