HOSTAFORM® RF 2162

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Hostaform® POM RF 2162 is an impact modified acetal copolymer that has been specially designed for Rotomolding. The material is UV stabilized and is available in precolored black or natural. Hostaform® POM RF 2162 has low fuel permeation and meets CARB and EPA regulations as a single layer solution.

Product information

Resin Identification	POM-I	ISO 1043
Part Marking Code	>POM-I<	ISO 11469

Rheological properties

Melt mass-flow rate	3.1	g/10min	ISO 1133
Melt mass-flow rate, Temperature	374	°F	
Melt mass-flow rate, Load	4.76	lb	
Molding shrinkage range, parallel	1.5 - 2	%	ISO 294-4, 2577
Molding shrinkage range, normal	1.5 - 2	%	ISO 294-4, 2577

Typical mechanical properties

Tensile modulus	203000	psi	ISO 527-1/-2
Tensile stress at yield, 50mm/min	6100	psi	ISO 527-1/-2
Tensile strain at yield, 50mm/min	20	%	ISO 527-1/-2
Tensile stress at break, 50mm/min	4640	psi	ISO 527-1/-2
Tensile strain at break, 50mm/min	>50	%	ISO 527-1/-2
Flexural modulus	196000	psi	ISO 178
Charpy impact strength, 23°C	N	ftlb/in²	ISO 179/1eU
Charpy notched impact strength, 23°C	7.04	ftlb/in²	ISO 179/1eA
Charpy notched impact strength, -30°C	3.81	ftlb/in²	ISO 179/1eA
Multiaxial impact, total energy, 23°C	212	in-lb	ASTM D 3763
Multiaxial impact, maximum load, 23°C	3690	N	ASTM D 3763
Mean Failure Energy, 23°C	8.85	ft-lb	ARM Impact Test
Mean Failure Energy, -20°C	3.69	ft-lb	ARM Impact Test
Mean Failure Energy, -40°C	2.95	ft-lb	ARM Impact Test

Thermal properties

Melting temperature, 10°C/min	329	°F	ISO 11357-1/-3
Temperature of deflection under load, 1.8 MPa	149	°F	ISO 75-1/-2
Temperature of deflection under load, 0.45 MPa	250	°F	ISO 75-1/-2
Vicat softening temperature, 50°C/h 50N	252	°F	ISO 306

Physical/Other properties

Density	0.0487	lb/in³	ISO 1183

Injection

Drying Recommended	no	
Drying Temperature	212	°F
Drying Time, Dehumidified Dryer	3 - 4	h
Processing Moisture Content	≤0.2	%
Max. screw tangential speed	≤0.3	m/s
Hold pressure range	8700 - 17400	psi

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Hold Pressure Time (h is the max. wall thickness of the part in mm)	$2h^2$-3 s

Characteristics

Processing	Injection Molding, Rotational Molding
Special characteristics	High impact or impact modified, Light stabilized or stable to light

Additional information

Rotomolding

Preprocessing

Typical Oven Times (440ºF/227ºC typical set temp. on gas ovens and cast aluminum tooling)
*Oven types, times and temperatures can vary.
*Hotter oven temperatures may be used as long as outer wall material temperature does not exceed 450ºF/232ºC.
0.150” wall (3.8 mm) 15-18 minutes
0.200” wall (5.1mm) 18-21 minutes
Typical Air Cooling
Rotate in air 0*-20 minutes (5-10 min. recommended)
*Although some tooling configurations could allow 0min in air possible, it is not recommended to perform a quick cool down right out of the oven.
Rotate in forced air 10-30 minutes
Ideal IAT (Internal Air Temperature)
375ºF (190ºC) 4-12 minutes
405ºF (207ºC) do not exceed
< 150ºF (93ºC) demold temp.
Outer wall Temp.
410-450ºF (210-232ºC) Typical
450ºF (232ºC) do not exceed

Processing

Existing molds usually suitable (Typical mold shrink is 1.5-3%)
Standard Pulverizers (attrition mills) are suitable. Product available in powder. Pellets should be reduced to 35mesh.
ARM 2.1 Flowability and Bulk Density Funnels are suitable to test powder.
Mold Releases can cause surface blistering. Mold Release or special tool coatings typically not needed. Compatible with certain flow enhancing products. Consult a Celanese representative for recommendations.

Start with a clean, blasted and grained tooling surface. For parting lines, removing all remnants of previous materials used in the tooling. Allow 1 or 2 molding shots to remove blasting residue.
Typical 4:1 ratio Major/Minor axis rotational speed (8:2, 6:1.5, etc.)

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Product exhibits good flow and seal around in-mold inserts.
Compatible with most secondary operations (In mold & post mold labelling, machining, assembly, etc). Flame treating not recommended.

Ensure adequate ventilation at all stages of the process including demolding.

Following demold allow part to cool to room temperature and inside of part to fully vent and evacuate air and gasses before performing secondary processing or examinations.

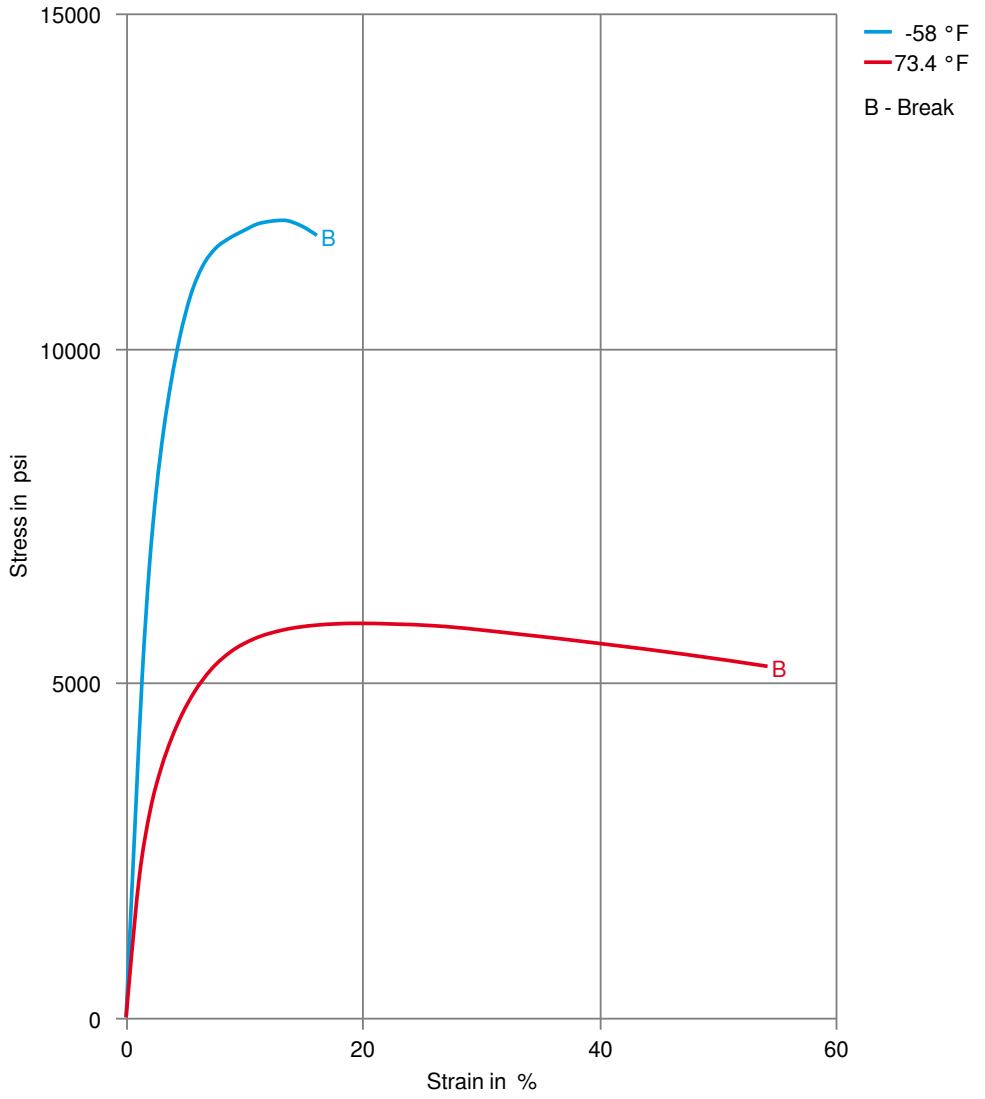
Avoid inadvertant mixing with PVC even in trace amounts.

Do not perform oven or tool burn-outs to clean polymer from ovens or tools.

Stress-strain

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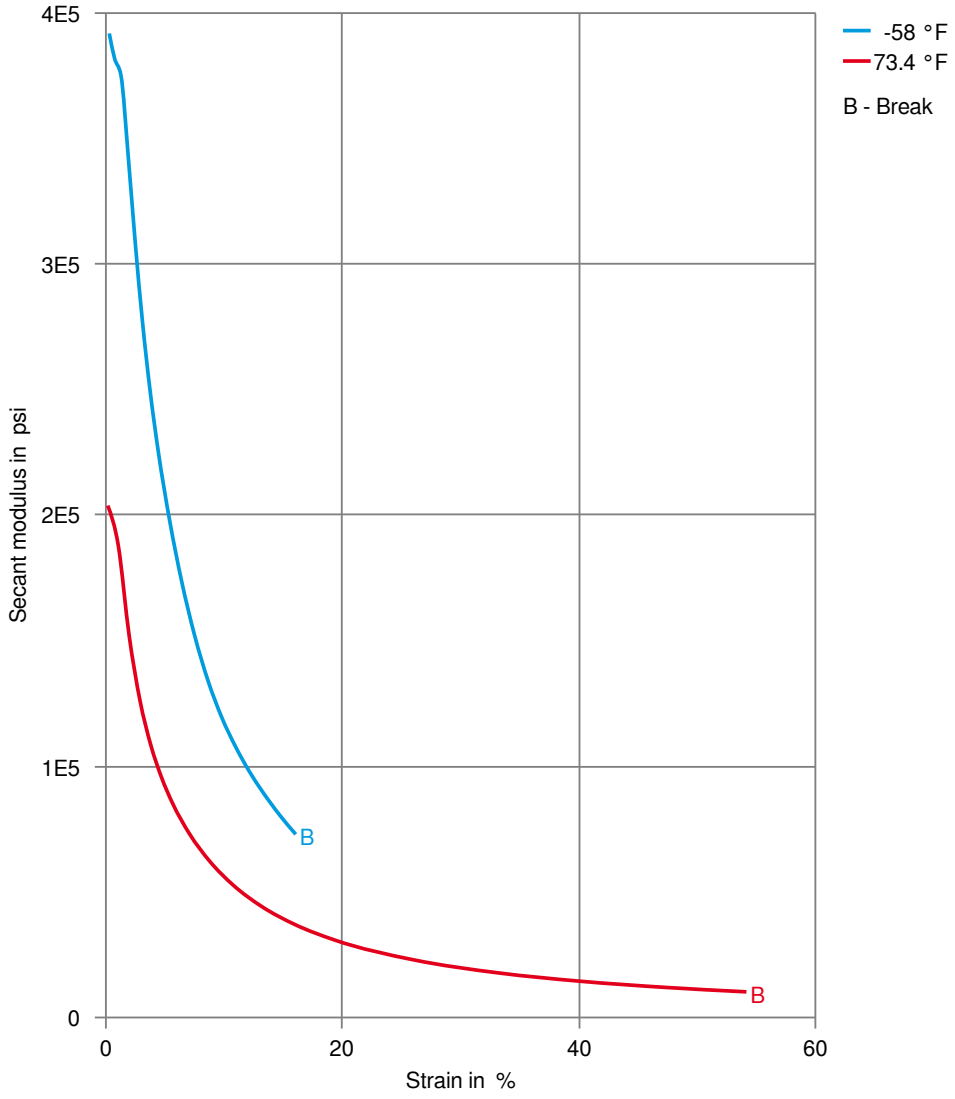


Revised: 2025-07-10 Source: Celanese Materials Database

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Secant modulus-strain



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