NYLON SOLUTIONS

Aegis® H55C2ZP Copolyamide Resin

for Packaging Applications

Description

Aegis® H55C2ZP copolyamide resin is a medium viscosity, non-lubricated, polyamide 6/66 copolymer for extrusion coating. It exhibits excellent processability due to its broad processing window and high melt strength, minimizing neck-in. For coextrusion-coated paperboard or paper, Aegis® H55C2ZP copolyamide resin exhibits excellent adhesion, low-warp performance and flex crack resistance. Its high melt strength can provide improved pinhole resistance for beverage cartons requiring an extended shelf-life.

Properties	Test Method	Unit	Value
Extractables	SOP-702-307	%	≤ 0.8
FA Viscosity	D-789		53
Moisture	D-6869	%	≤ 0.10
Yellowness Index (YI)	E-313	MCAMD	≤ -1.0

Typical Properties, Molded Bar	Test Method	Unit	DAM Value	COND Value[1]
Tensile Modulus	ASTM D-638	MPa	2,500	850
Tensile Strength @ Yield	ASTM D-638	MPa	77	38
Elongation @ Break	ASTM D-638	%	37	>200
Flexural Strength	ASTM D-638	MPa	105	33
Flexural Modulus	ASTM D-638	MPa	2,504	630
Notched Izod Impact	ASTM D-256	J/m	37	320
Density	ASTM D-792	g/cm^3	1.11	

[1]Conditioned at 70°C (158°F) and 62% RH for 72 hours (ISO 1110:2019)

Typical Properties, Film	Test Method	Unit	MD Value	TD Value[1]
Tensile Modulus	ASTM D-882	MPa	198	320
Tensile Strength @ Break	ASTM D-882	MPa	94	60
Tensile Strength @ Yield	ASTM D-882	MPa	22	19
Elongation @ Break	ASTM D-882	%	710	568
Elongation @ Yield	ASTM D-882	MPa	22	19

[1]Conditioned at 70°C (158°F) and 62% RH for 72 hours (ISO 1110:2019)

Food Compliance Status

Aegis® H55C2ZP copolyamide resin conforms to FDA requirements of 21 CFR.177.1500 (b) (4.2), China GB Standards and EU Plastic Regulation.

Processing Guidelines

Material Handling

Maximum water content for Aegis® H55C2ZP copolyamide resin is 0.12%. This product is supplied in sealed containers and drying prior to processing is not required. However, higher moisture is the primary cause of processing issues. If drying becomes necessary, a dehumidifying or desiccant dryer operating at 80°C (176°F) is recommended. Drying time is dependent on moisture level. More information about safe handling procedures can be obtained by requesting the Safety Data Sheet on AdvanSix.com.

Melt Viscosity vs. Temperature

Melting Point: ASTM D-3418: 205-209°C (401-408°F)
Melt Temperature: Recommended range is 230-275°C (446-527°F)

Typical Extrusion Temperature Profile

Barrel: 239-256°C (462-493°F)
Adapter: 250-256°C (482-493°F)
Die: 250-256°C (482-493°F)
Process Melt Temperature: 250-260°C (482-500°F)

Screw Parameters

Metering Section: 40%
Transition Section: 3 to 4 flights
Feed Section: Balance of screw length
Compression Ratio: 3.5:1 to 4.0:1
L/D Ratio: 24:1

Metering Section Flight Depth

Screw Diameter	Recommended Depth
1"	0.055"
1.5"	0.060"
2"	0.070"
2.5"	0.080"
3.5"	0.100"
4.5"	0.115"
6"	0.135"

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

Contact AdvanSix
To learn more about the benefits of of Aegis® Nylon Resins, visit **AdvanSix.com/NylonSolutions** or call:
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