

NYLON SOLUTIONS

Aegis® H55C2ZP Copolyamide Resin

for Engineered Plastics Applications

Description

Aegis® H55C2ZP is an unfilled, medium viscosity, non-lubricated, polyamide 6/66 copolymer for molding or compounding. It exhibits excellent processibility due to its broad processing window and excellent melt fluidity for filling thin sections. Aegis® H55C2ZP exhibits good strength, stiffness and toughness along with excellent chemical and abrasion resistance. For glass- or mineral-filled applications, Aegis® H55C2ZP also offers excellent surface appearance and low warp.

Typical Properties	Test Method	Unit	Value
Extractables	SOP-702-307	%	≤ 0.8
FA Viscosity	D-789	none	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-790	MPa	105	33
Flexural Modulus	ASTM D-790	MPa	2,504	630
Notched Izod Impact	ASTM D-256	J/m	37	320
HD @ 0.45 MPa	ASTM D-648	°C (°F)	133 (271.4)	-
HD @ 1.8 MPa	ASTM D-648	°C (°F)	61 (141.8)	-
Mold Shrink, MD, 48 hrs	ASTM D-955	%	0.94	-
Mold Shrink, TD, 48 hrs	ASTM D-955	%	1.03	-
Density	ASTM D-792	g/cm ³	1.11	-

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

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

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Processing Guidelines

Material Handling

Maximum Water Content: 0.12%

Aegis® H55C2ZP copolyamide resin is supplied in sealed containers and drying prior to processing is not required. However, high 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.

Recommended Melt Temperature Range

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"

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Contact AdvanSix

To learn more about the benefits of of Aegis® Nylon Resins, visit

AdvanSix.com/NylonSolutions or call:

1-844-890-8949 (toll free, U.S./Can.)

+1-973-526-1800 (international)

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