

Material Physical Property Information for ARPLANK® Products

ARPRO® Expanded Polypropylene (EPP) – Density Range 1.3 pcf to 3.7 pcf (20 to 60 g/l)

Physical Properties†	Test Method	Units	JSP ARPRO® EPP			
Density (Grade)	ASTM-D3575	pcf	1.3	1.9	2.8	3.7
Density	ASTM-D3575	g/l	20	30	45	60
Compressive Strength @ 10%	ASTM-D3575	psi	11.7	18	32	44
Compressive Strength @ 25%		psi	14.5	23.5	42	57
Compressive Strength @ 50%		psi	23.5	33.5	54	73
Compressive Strength @ 75%		psi	45	64	111	155
Tensile Strength	ASTM-D3575	psi	38	55.5	67	89
Tensile Elongation	ASTM-D3575	%	20	18	16	15
Tear Strength	ASTM-D3575	lbs/in	10	13	16	19.5
Compressive Set @ 25%	ASTM-D3575	%	8	7	7	7
Compressive Set @ 50%	ASTM D3575	%	14	12	12	11
Buoyancy	ASTM-D3575	lbs/ft ³	60.5	59.5	59	57
Thermal Conductivity	ASTM-C177	(K) BTU-in/ft ² -hr-°F	0.26	0.24	0.26	0.26
Thermal Resistance	ASTM-C177	(R) @70°F	3.8	4.0	3.8	3.8
Coeff. of Lin. Thermal Expansion	ASTM-D696	in/in/°F x 10 ⁻⁵	6.0	5.7	5.4	4.8
Service Temperature	ASTM-D3575	°F (Max.)	212	212	212	212
Water Absorption	ASTM-D3575/C272	% (vol)/lb/ft ²	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02
Compressive Creep	ASTM-D3575	1000hr, % (psi)	1.8 (1.5)	1.2 (2.0)	1.5 (3.0)	1.5 (6.0)
Flammability	FMVSS-302	<4.0 in/min	Pass	Pass	Pass	Pass
Chemical Resistance	Various	1 hr exposure (solvents, acids, and alkalines)	Pass	Pass	Pass	Pass
Fuel Immersion	Coast Guard; Fuel B per 33 CFR §183.114	<5% (chg in vol)	Pass	Pass	Pass	Pass

†Note: For standard JSP ARPLANK EPP Products. Values shown are typical of the product and should not be construed as specification limits. (NA = Not Available)