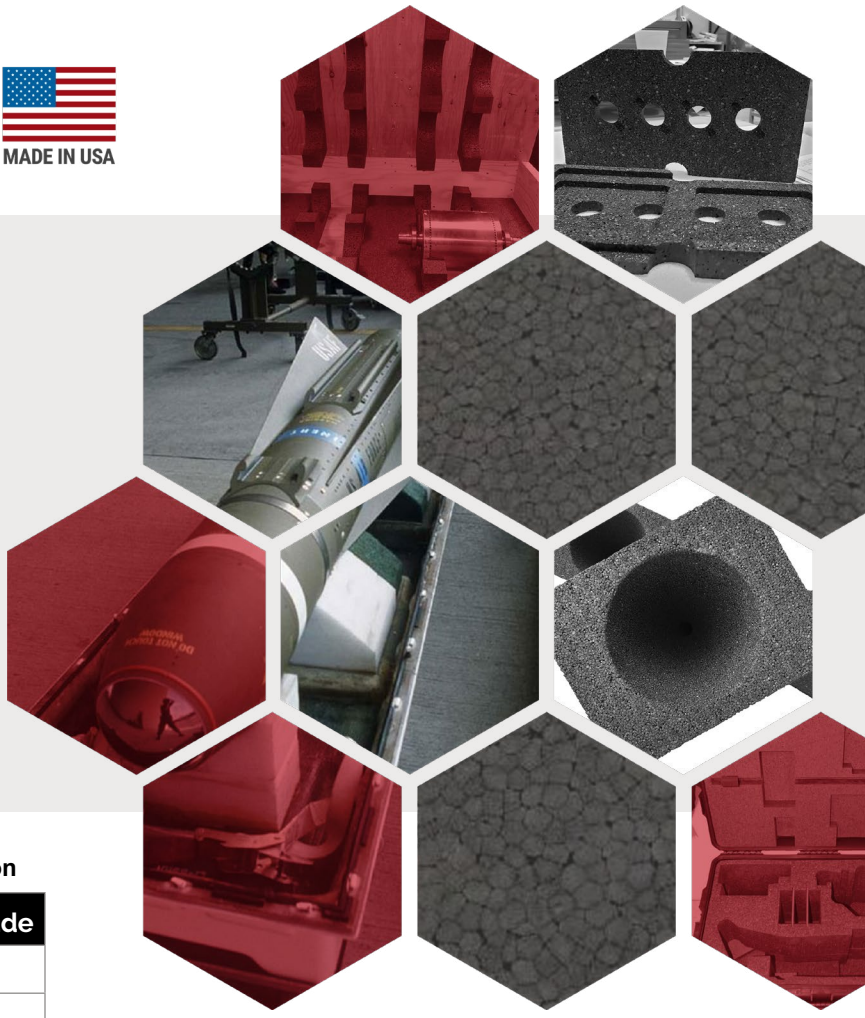
ARPLANK® DIRECT

MADE IN USA

Expanded Polyethylene (EPE) & Expanded Polypropylene (EPP) Molded Plank

The tables below reference **ARPLANK®** EPE & EPP molded plank products that can be certified to meet MIL STD CID A-A 59135 and CID-A-A-59136, which supersedes classification MIL PPP-C-1752D from 1997.

DUNS: 808486679 | CAGE Code: 5UCA3 | JSP Resins LLC



Expanded Polyethylene (EPE) - CID A-A 59136 Classification

ARPLANK® EPE Molded Plank	Type	Class	Grade
ARPLANK® EPE 1.3# and EPE 1.5#	I	1	A
ARPLANK® EPE 1.9# and EPE 2.3#	III	1	A
ARPLANK® EPE 2.8# and EPE 3.3#	IV	1	A
ARPLANK® EPE 4.6#	V	1	A

Expanded Polypropylene (EPP) - CID A-A 59136 Classification

ARPLANK® EPP Molded Plank	Type	Class	Grade
ARPLANK® EPP 1.3#	I	2	A
ARPLANK® EPP 1.9#	III	2	A
ARPLANK® EPP 2.8#	IV	2	A
ARPLANK® EPP 3.7#	V	2	A

GRADE DESCRIPTION:

Grade A = Standard
Grade B = AS (Anti- Static)
Grade C = FR (Fire Retardant)
Grade D = FRAS (Fire Retardant & Anti-Static)

CLASS DESCRIPTION:

Class 1 = Polyethylene Plank
Class 2 = Polypropylene Plank
Class 3 = General plank (polymer type specified by the customer)
Class 4 = Skived sheets, planks or special shapes

NOTES:

- Grade B (Anti-Static) & Grade C (Fire Retardant) - Special order, minimum density 1.5#, White or Black only.
- We can certify to FR specifications: UL94, ASTM E162 or ASTM 5132.

MILITARY PACKAGING APPLICATIONS

- Missile/Weapon Containerization
- Case Inserts & Drone Cases
- Crating Dunnage
- Ammo/Ordnance Packs
- Instrument Cushioning
- Sensitive Electronic Packaging
- Flotation
- Blocking/Bracing

EXCEPTIONAL PERFORMANCE IS KEY

- Very durable for repetitive impacts
- Multiple-strike energy management
- 30% - 40% less foam weight
- 6” solid plank — less layering
- 50% — less (CLTE) thermal expansion
- No out-gassing – 0% LEL
- Highly Predictable — static load limits
- Very high abrasion resistance
- -76°F to 160°F: Temperature range
- R4 — Thermal insulation properties
- Moisture, weather and UV resistance
- Excellent chemical resistance

Please contact **ARPLANK®** for highly qualified material selection, engineering design and fabricated component consultation. **ARPLANK®** can also assist with locating an experienced foam fabricator in your area.

Material Physical Property Information for ARPLANK® Products

Physical Properties	Test Method	Units	ARPLANK® EPE							ARPLANK® EPP			
			Type I		Type III		Type IV		Type V	Type I	Type III	Type IV	Type V
Density (Grade)	ASTM-D3575	pcf	1.3	1.5	1.9	2.3	2.8	3.3	4.6	1.3	1.9	2.8	3.7
Density	ASTM-D3575	g/l	20	24	30	37	45	53	74	20	30	45	60
Compressive Strength @ 10%		psi	6.5	8.0	10.2	13.2	16.8	20	35	11.7	18	32	44
Compressive Strength @ 25%	ASTM-D3575	psi	8.8	10.3	12.8	16.5	20.7	25	43	14.5	23.5	42	57
Compressive Strength @ 50%		psi	16.6	18.4	22.0	27.6	33.5	40	70	23.5	33.5	54	73
Compressive Strength @ 75%		psi	42.5	47.6	55.6	64.3	75.4	90	130	45	64	111	155
Tensile Strength	ASTM-D3575	psi	40	45	52	62	70	76	120	38	55.5	67	89
Tensile Elongation	ASTM-D3575	%	38	35	32	31	30	25	22	20	18	16	15
Tear Strength	ASTM-D3575	lbs/in	14	16	17	19	21	22	34	10	13	16	19.5
Compressive Set @ 25%	ASTM-D3575	%	3	4	4	4	4	5	7	8	7	7	7
Compressive Set @ 50%	ASTM-D3575	%	14	13	12	12	12	14	15	14	12	12	11
Buoyancy	ASTM-D3575	lbs/ft^3	60.6	59.5	59.5	59.3	59.1	58.5	56.5	60.5	59.5	59	57
Thermal Conductivity	ASTM-C177	(K) BTU-in/ ft^2-hr-°F	0.25	0.24	0.24	0.24	0.24	0.26	0.30	0.25	0.25	0.26	0.26
Thermal Resistance	ASTM-C177	(R) @70°F	4.0	4.2	4.2	4.2	4.1	3.9	3.3	4.0	4.0	3.9	3.8
Coeff. of Lin. Thermal Expansion	ASTM-D696	in/in/°F x 10^{-5}	8.2	7.2	6.2	5.5	4.8	4.6	4.0	6.0	5.7	5.4	4.8
Service Temperature	ASTM-D3575	°F (Max.)	160	160	160	160	160	160	160	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	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02	<5.0/< 0.02
Compressive Creep	ASTM-D3575	1000hr, % (psi)	2.8 (1)	3.0 (1)	3.3 (1)	3.5 (1.5)	3.0 (1.5)	5.0 (3.0)	4.0 (10)	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	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Chemical Resistance	Various	1 hr exposure (solvents, acids, and alkalines)	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Fuel Immersion	Coast Guard; Fuel B per 33 CFR §183.114	<5% (chg in vol)	Pass	Pass	Pass	Pass	Pass	Pass	N/A	Pass	Pass	Pass	Pass

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