

## Polyguard PolyPhen®

**Product Overview** 



The Polyguard PolyPhen® phenolic insulation is one component in our PolyPhen® system including a range of rigid foam insulation densities designed for piping systems, tanks, vessels and ductwork in commercial and industrial applications.

The PolyPhen® phenolic rigid foam insulation products, have thermal conductivities ranging from 0.17 - .24 Btu in/hr ft2 and can be used to insulate surfaces operating within the temperature range of -290°F to +250°F (-180°C to +120°C), and is manufactured to provide optimum thermal performance and flame resistance, low smoke emissions, environmental safety, and efficient cost.





2.5 Lb. Density, Orange3.75 Lb. Density, Yellow/White5.0 Lb. Density, Pink/ Red7.5 Lb. Density, Green



8.3 Ft. Long, 3 Ft. Wide, 2.5 Ft. High, 750 Brd. Ft. in Billet.



Quality closed cell, efficient insulation



Accurately fabricated, tight fitting insulation



Firmly butted and sealed offset joints



Vapor stops as needed



Continuous, sealed **ZeroPerm vapor barrier** 



Mechanical and weather cladding

## Meets the requirements of ASTM C 1126 type III products

			Value & Type			
Properties	Standard	Units	2.5 LB	3.75 LB	5 LB	7.5 LB
COLOR			Orange	Yellow/White	Pink/Red	Green
NOMINAL DENSITY	ASTM D-1622	lb/ft²	2.5	3.75	5	7.5
CLOSED CELL CONTENT	ASTM D-2856	Minimum %	95	95	95	95
TEMPERATURE LIMITS		°F	-290 to +250	-290 to +250	-290 to +250	-290 to +250
THERMAL CONDUCTIVITY	ASTM C-518	Btu·in./hr·ft²·ºF@75ºF	0.17	0.19	0.22	0.24
SPECIFIC HEAT		Btu/lb.ºF	0.45	0.45	0.45	0.45
COMPRESSIVE STRENGTH Parallel to Rise Perpendicular to Rise	ASTM D-1621 ASTM D-1621	lb/in² lb/in²	30 25	50 40	90 70	150 110
TENSILE STRENGTH Parallel to Rise Perpendicular to Rise	ASTM D-1623 ASTM D-1623	lb/in²	23	45 35	80 60	100
THERMAL AND HUMID AGING -40 " 6°F Ambient RH 158 " 4°F 97, " 3% RH 257 " 4°F Ambient RH	ASTM D-2126 ASTM D-2127 ASTM D-2128	% lin chg % lin chg % lin chg	#2 #2 #2	#2 #2 #2	#2 #2 #2	#2 #2 #2
WATER VAPOR PERMEABILITY	ASTM E-96	perm inch	#4	#4	#4	#4
WATER ABSORPTION	ASTM C-209	% by volume	0.6%	0.6%	0.6%	0.6%
FLAME/SMOKE	ASTM E-84					
Insulation only (2.5# tested 2-26-2016)	up to 4 inches	flame spread	25/50	#25	#25	#25
	up to 4 inches	smoked developed	0.0	#50	#50	#50

Part #	Bun Density (LB.)	Bun Color	Bun Length (FT.)	Bun Width (FT.)	Bun Height (FT.)	BRD. FT. in Bun
POLYPHEN 2500	2.5	Orange	8.3	3	2.5	750
POLYPHEN 3750	3.75	Yellow/White	8.3	3	2.5	750
POLYPHEN 5000	5.0	Pink/Red	8.3	3	2.5	750
POLYPHEN 7500	7.5	Green	8.3	3	2.3	700



