

## EPS Direct over Metal Roof Decks

Underwriters Laboratories Listed Construction Assembly #458

### EPS Thermal Insulation

EPS (Expanded Polystyrene) Direct over Metal Roof Decks eliminates the use of costly and labor intensive thermal barriers on projects where metal roof decks are used. This application allows for greater flexibility in roof design and construction, while also providing the most cost-effective, long-term performance per R-Value of any rigid insulation currently available.

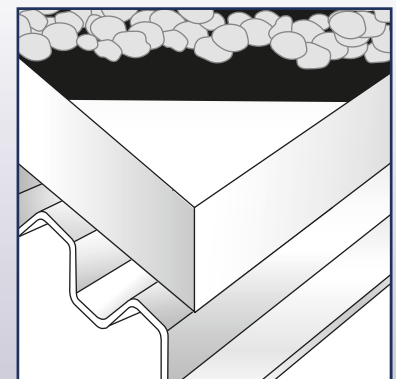
### Features

- Eliminates thermal barriers
- Ease of handling and installation
- Meets UL 458 requirements
- Provides stable, long-term R-Value over the life of the roof system
- Environmentally friendly (contains no CFCs, HCFCs, or formaldehyde)

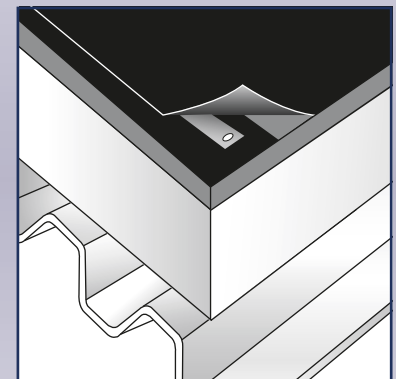
### Technical Data

Meets or exceeds ASTM C578

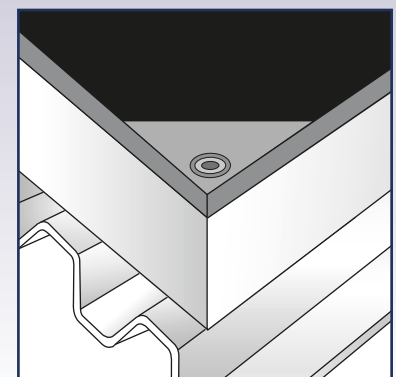
Physical Properties	I	VIII	II	IX	ASTM Test Method
Nominal Density	1.00 pcf	1.25 pcf	1.50 pcf	2.00 pcf	C 303 or D 1622
Thermal Conductivity (K Factor)					C 177 or C 518
25° F	.23 BTU/hr	.22 BTU/hr	.21 BTU/hr	.20 BTU/hr	
40° F	.24 BTU/hr	.235 BTU/hr	.22 BTU/hr	.21 BTU/hr	
75° F	.26 BTU/hr	.255 BTU/hr	.24 BTU/hr	.23 BTU/hr	
Thermal Resistance (R-Value)					C 177 or C 518
25° F	4.35/in	4.54/in	4.76/in	5.00/in	
40° F	4.17/in	4.25/in	4.55/in	4.76/in	
75° F	3.85/in	3.92/in	4.17/in	4.35/in	
Compressive Strength	10-14 psi	13-18 psi	15-21 psi	25-33 psi	D 1621
Flexural Strength	25-30 psi	30-38 psi	40-50 psi	50-75 psi	
Water Vapor Transmission	2.0-5.0 perms	1.5-3.5 perms	1.0-3.5 perms	0.6-2.0 perms	E 96
Water Absorption	4.0 (max) % by volume	3.0 (max) % by volume	3.0 (max) % by volume	2.0 (max) % by volume	C 272
Coefficient of Thermal Expansion	.000035 in	.000035 in	.000035 in	.000035 in	D 696
Max. Service Temp.					
Long Term	167° F	167° F	167° F	167° F	
Intermittent	180° F	180° F	180° F	180° F	
Flame Spread	15 at 6"	5 at 4"	5 at 4"	15 at 4"	E 84-81A
Smoke Developed	95-125	105-190	5-235	20-145	E 84-81A



Ballasted



Mechanically Fastened



Fully Adhered

