R-SHIELD® RIGID INSULATION 50 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 50 has an R-value that never changes over time.

Strength – R-Shield 50 has a compressive strength of 10 psi.

Moisture Resistance – R-Shield 50 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 50 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 50 rapidly releases absorbed moisture.

Applications.

- Precast Concrete Core
- Void Fill
- Flotation
- Protective Packaging

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type XI of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

R-SHIELD® RIGID INSULATION 50			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	5 (35)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	3.6 (0.63)
	40°F	°F·ft²·h/Btu (°K·m²/W)	3.4 (0.60)
	75°F	°F·ft²·h/Btu (°K·m²/W)	3.2 (0.56)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.28 (0.040)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.29 (0.042)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.31 (0.045)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	0.75 (12)
Flexural Strength[1], min. ASTM C203		psi (kPa)	10 (69)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			5.0
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long-term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			XI

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

A PRODUCT OF PREMIER BUILDING SYSTEMS

R-SHIELD® RIGID INSULATION 100 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 100 has an R-value that never changes over time.

Strength – R-Shield 100 has a compressive strength of 10 psi.

Moisture Resistance – R-Shield 100 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 100 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 100 rapidly releases absorbed moisture.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Drainage Board
- Waterproofing Protection

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type I of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

A PRODUCT OF PREMIER BUILDING SYSTEMS

R-SHIELD® RIGID INSULATION 100			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	10 (69)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	4.4 (0.77)
	40°F	°F·ft²·h/Btu (°K·m²/W)	4.2 (0.74)
	75°F	°F·ft²·h/Btu (°K·m²/W)	3.9 (0.69)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.23 (0.033)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.24 (0.035)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.26 (0.037)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	1.0 (16)
Flexural Strength[1], min. ASTM C203		psi (kPa)	25 (173)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			5.0
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long-term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			I

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

R-SHIELD® RIGID INSULATION 130 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 130 has an R-value that never changes over time.

Strength – R-Shield 130 has a compressive strength of 13 psi.

Moisture Resistance – R-Shield 130 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 130 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 130 rapidly releases absorbed moisture.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Drainage Board
- Waterproofing Protection

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type VIII of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

R-SHIELD® RIGID INSULATION 130			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	13 (90)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	4.5 (0.80)
	40°F	°F·ft²·h/Btu (°K·m²/W)	4.3 (0.76)
	75°F	°F·ft²·h/Btu (°K·m²/W)	3.9 (0.69)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.22 (0.032)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.24 (0.034)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.26 (0.037)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	1.25 (20)
Flexural Strength[1], min. ASTM C203		psi (kPa)	30 (208)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			3.5
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long-term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			VIII

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

A PRODUCT OF PREMIER BUILDING SYSTEMS

R-SHIELD® RIGID INSULATION 150 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 150 has an R-value that never changes over time.

Strength – R-Shield 150 has a compressive strength of 15 psi.

Moisture Resistance – R-Shield 150 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 150 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 150 rapidly releases absorbed moisture.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Perimeter/Underslab
- Drainage Board
- Waterproofing Protection

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type II of ASTM C578, “Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation”.

R-SHIELD® RIGID INSULATION 150			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	15 (104)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	4.8 (0.84)
	40°F	°F·ft²·h/Btu (°K·m²/W)	4.6 (0.81)
	75°F	°F·ft²·h/Btu (°K·m²/W)	4.2 (0.74)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.21 (0.030)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.22 (0.032)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.24 (0.035)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	1.5 (24)
Flexural Strength[1], min. ASTM C203		psi (kPa)	35 (242)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			3.5
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long-term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			II

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

A PRODUCT OF PREMIER BUILDING SYSTEMS

R-SHIELD® RIGID INSULATION 250 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 250 has an R-value that never changes over time.

Strength – R-Shield 250 has a compressive strength of 25 psi.

Moisture Resistance – R-Shield 250 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 250 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 250 rapidly releases absorbed moisture.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Perimeter/Underslab
- Drainage Board
- Waterproofing Protection

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type IX of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

R-SHIELD® RIGID INSULATION 250			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	25 (173)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	5.0 (0.88)
	40°F	°F·ft²·h/Btu (°K·m²/W)	4.8 (0.85)
	75°F	°F·ft²·h/Btu (°K·m²/W)	4.4 (0.77)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.20 (0.029)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.21 (0.030)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.23 (0.033)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	2.0 (32)
Flexural Strength[1], min. ASTM C203		psi (kPa)	50 (345)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			2.5
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long-term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			IX

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

A PRODUCT OF PREMIER BUILDING SYSTEMS

R-SHIELD® RIGID INSULATION 400 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 400 has an R-value that never changes over time.

Strength – R-Shield 400 has a compressive strength of 40 psi.

Moisture Resistance – R-Shield 400 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 400 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 400 rapidly releases absorbed moisture.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Perimeter/Underslab
- Drainage Board
- Waterproofing Protection

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type XIV of ASTM C578, "Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation".

R-SHIELD® RIGID INSULATION 400			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	40 (276)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	5.0 (0.88)
	40°F	°F·ft²·h/Btu (°K·m²/W)	4.8 (0.85)
	75°F	°F·ft²·h/Btu (°K·m²/W)	4.4 (0.77)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.20 (0.029)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.21 (0.030)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.23 (0.033)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	2.5 (40)
Flexural Strength[1], min. ASTM C203		psi (kPa)	60 (414)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			2.5
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			XIV

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

A PRODUCT OF PREMIER BUILDING SYSTEMS

R-SHIELD® RIGID INSULATION 600 TECH DATA

Expanded Polystyrene Insulation.

R-Shield® expanded polystyrene insulation is a cost effective, durable, and energy efficient solution for all types of insulation applications. R-Shield Insulation is an insulation manufactured to provide architects, specifiers, distributors, and contractors all the features and benefits inherent in a quality insulation.

R-value – R-Shield 600 has an R-value that never changes over time.

Strength – R-Shield 600 has a compressive strength of 60 psi.

Moisture Resistance – R-Shield 600 is a closed cell polystyrene insulation and is resistant to moisture gain.

Vapor Permeable – R-Shield 600 allows moisture vapor to move through its structure.

Drying Potential – R-Shield 600 rapidly releases absorbed moisture.

Applications.

- Cavity Wall
- Wall Sheathing
- Precast Concrete Core
- Flat/Tapered Roofing
- Plaza Deck/Vegetative Green Roof
- Perimeter/Underslab
- Drainage Board
- Waterproofing Protection

Proven to meet, or exceed, building codes.

R-Shield insulation is manufactured under an industry leading quality control program monitored by UL and further recognized in UL Evaluation Report UL ER40361-01 and ICC ESR-4743.

R-Shield insulation meets Type XV of ASTM C578, “Standard Specification for Rigid, Cellular Polystyrene Thermal Insulation”.

R-SHIELD® RIGID INSULATION 600			
Compressive Strength[1,2] @ 10% deformation, min. ASTM D1621		psi (kPa)	60 (414)
R-value[1], Thermal Resistance, per inch, ASTM C518	25°F	°F·ft²·h/Btu (°K·m²/W)	5.1 (0.90)
	40°F	°F·ft²·h/Btu (°K·m²/W)	4.9 (0.86)
	75°F	°F·ft²·h/Btu (°K·m²/W)	4.5 (0.79)
k-value Thermal Conductivity ASTM C518	25°F	Btu·in/°F·ft²·h (W/°K·m)	0.20 (0.028)
	40°F	Btu·in/°F·ft²·h (W/°K·m)	0.21 (0.030)
	75°F	Btu·in/°F·ft²·h (W/°K·m)	0.22 (0.032)
Density, Nominal ASTM C303		lb/ft³ (kg/m³)	3.0 (48)
Flexural Strength[1], min. ASTM C203		psi (kPa)	75 (517)
Water Vapor Permeance[1] of 1.0 in. thickness, max., perm ASTM E96			2.5
Water Absorption[3], volume % ASTM C272			0.3
Flame Spread Index ASTM E84			<25
Smoke Developed Index ASTM E84			<450
Maximum long term use temperature			165°F (74°C)
ASTM C578 Compliance, Type			XV

[1] Please refer to ASTM C578 specification for complete information.

[2] Compressive strength is measured at 10 percent in accordance with ASTM C578. A safety factor is required to prevent long-term creep for sustained loads. For static loads, a safety factor of 3:1 is recommended.

[3] ASTM C272 24 hour immersion followed by 24 hour storage in 75°F/50%RH air.

A PRODUCT OF PREMIER BUILDING SYSTEMS