

SCUDOFLEX[®]

-NBR



Polyethylene Foam For Thermal Insulation



GLADIATOR BUILDING PRODUCTS LTD. UK

Attributes of SCUDOFLEX - NBR

SCUDOFLEX - NBR utilizes a refined closed-cell foam architecture, guaranteeing minimal heat transfer and a low vapor diffusion coefficient (tested via KS M 6962). This promotes enduring thermal efficiency and superior moisture control when managing significant temperature gradients between internal and external spaces.

KEY ATTRIBUTES

- Non-Porous Composition
- Superior Thermal Performance
- Ideal for Cryogenic Use
- Eco-Conscious Insulation
- Biostatic Properties
- Microbial Protection
- Robust Structural Integrity
- User-Friendly Installation
- Marine & Coastal Ready
- Ozone-Stable Material
- Versatile Utility

SCUDOFLEX - NBR GLUE



SCUDOFLEX - NBR TUBES, ROLLS

SCUDOFLEX - NBR Consists of a pliable closed-cell elastomeric thermal insulation foam, featuring high moisture vapor resistance and minimal thermal conductivity. It is ideal for various uses such as duct and pipe lagging for HVAC systems, cold water, chilled water, heating, and cooling. Engineered for internal and external use, though exterior setups require extra shielding from environmental elements and ultraviolet exposure.

SCUDOFLEX - NBR with foil coating
Factory-bonded aluminum foil coating is intended for interior setups to boost the physical durability of elastomeric foam. Provided in the shapes of piping and sheets.

SCUDOFLEX - NBR with Glass Fabric
Glass fabric is a factory-bonded coating intended for interior setups to boost the physical durability and to enhance the visual appearance of thermal lagging. It is provided in the shapes of piping, sheets and in several shades - black, blue, green and red.

APPLICATIONS



SCUDOFLEX - Duct insulation



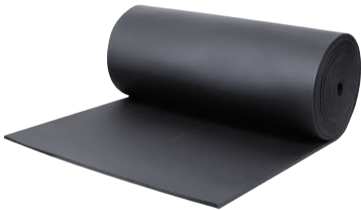
SCUDOFLEX - Mechanical equipment



Surface Morphology

Optimal Rate of Foaming

Cellular Architecture



SCUDOFLEX - NBR Rolls



SCUDOFLEX - NBR
Foil Facing Tubes



SCUDOFLEX - NBR
Tubes with Glass Cloth

SCUDOFLEX - NBR

TUBES

SIZE RANGE

Insulation Tube Size		6 mm (1/4")		9 mm (3/8")		13 mm (1/2")		19 mm (3/4")		25 mm (1")		32 mm (1 -1/4")	
Inch	mm	Code	Pcs / Box	Code	Pcs / Box	Code	Pcs / Box	Code	Pcs / Box	Code	Pcs / Box	Code	Pcs / Box
1/4"	6	SNBT 6x6	180	SNBT 9x6	168	SNBT 13x6	90	SNBT 19x6	50	SNBT 25x6	35	SNBT 32x6	20
3/8"	9	SNBT 6x9	170	SNBT 9x9	130	SNBT 13x9	80	SNBT 19x9	40	SNBT 25x9	25	SNBT 32x9	20
1/2"	13	SNBT 6x13	150	SNBT 9x13	115	SNBT 13x13	65	SNBT 19x13	40	SNBT 25x13	25	SNBT 32x13	20
5/8"	16	SNBT 6x16	120	SNBT 9x16	90	SNBT 13x16	60	SNBT 19x16	35	SNBT 25x16	25	SNBT 32x16	15
3/4"	19	SNBT 6x19	100	SNBT 9x19	76	SNBT 13x19	45	SNBT 19x19	30	SNBT 25x19	20	SNBT 32x19	15
7/8"	22	SNBT 6x22	90	SNBT 9x22	70	SNBT 13x22	40	SNBT 19x22	30	SNBT 25x22	20	SNBT 32x22	12
1"	25	SNBT 6x25	70	SNBT 9x25	55	SNBT 13x25	40	SNBT 19x25	25	SNBT 25x25	20	SNBT 32x25	12
1- 1/8"	28	SNBT 6x28	70	SNBT 9x28	55	SNBT 13x28	36	SNBT 19x28	25	SNBT 25x28	18	SNBT 32x28	12
1- 1/4"	32	SNBT 6x32	65	SNBT 9x32	40	SNBT 13x32	30	SNBT 19x32	20	SNBT 25x32	15	SNBT 32x32	12
1- 3/8"	35	SNBT 6x35	60	SNBT 9x35	36	SNBT 13x35	30	SNBT 19x35	20	SNBT 25x35	15	SNBT 32x35	12
1- 1/2"	38	SNBT 6x38	50	SNBT 9x38	36	SNBT 13x38	25	SNBT 19x38	17	SNBT 25x38	12	SNBT 32x38	10
1- 5/8"	42	SNBT 6x42	40	SNBT 9x42	30	SNBT 13x42	25	SNBT 19x42	17	SNBT 25x42	12	SNBT 32x42	10
1- 7/8"	48			SNBT 9x48	25	SNBT 13x48	20	SNBT 19x48	15	SNBT 25x48	10	SNBT 32x48	8
2"	51			SNBT 9x51	25	SNBT 13x51	20	SNBT 19x51	15	SNBT 25x51	9	SNBT 32x51	8
2- 1/8"	54			SNBT 9x54	25	SNBT 13x54	20	SNBT 19x54	15	SNBT 25x54	9	SNBT 32x54	8
2- 3/8"	60			SNBT 9x60	20	SNBT 13x60	18	SNBT 19x60	12	SNBT 25x60	9	SNBT 32x60	6
2- 1/2"	63			SNBT 9x63	20	SNBT 13x63	18	SNBT 19x63	12	SNBT 25x63	8	SNBT 32x63	6
2- 5/8"	67			SNBT 9x67	20	SNBT 13x67	15	SNBT 19x67	10	SNBT 25x67	8	SNBT 32x67	5
2- 7/8"	73			SNBT 9x73	18	SNBT 13x73	15	SNBT 19x73	10	SNBT 25x73	6	SNBT 32x73	4
3"	76			SNBT 9x76	15	SNBT 13x76	12	SNBT 19x76	10	SNBT 25x76	6	SNBT 32x76	4
3- 1/8"	79			SNBT 9x79	15	SNBT 13x79	12	SNBT 19x79	10	SNBT 25x79	6	SNBT 32x79	4
3- 1/2"	89					SNBT 13x89	10	SNBT 19x89	8	SNBT 25x89	6	SNBT 32x89	4
3- 5/8"	92					SNBT 13x92	8	SNBT 19x92	6	SNBT 25x92	6	SNBT 32x92	4
4"	102					SNBT 13x102	8	SNBT 19x102	6	SNBT 25x102	4	SNBT 32x102	3
4- 1/8"	105					SNBT 13x105	8	SNBT 19x105	6	SNBT 25x105	4	SNBT 32x105	3
4- 1/4"	110					SNBT 13x110	8	SNBT 19x110	6	SNBT 25x110	4	SNBT 32x110	3
4- 1/2"	114					SNBT 13x114	6	SNBT 19x114	6	SNBT 25x114	3	SNBT 32x114	3

SCUDOFLEX - NBR

SHEETS & ROLLS

SIZE RANGE

NBR Rolls								NBR Sheets	
Thickness Inch	Thickness mm	Width x Length m x m	Pcs/ Box	Plain	Plain with self-adhesive (SA)	Width x Length m x m	Pcs/ Box	Plain	Plain with self-adhesive (SA)
1/4"	6	1x30	1	SNBR 6x1x30	SNBR 6x1x30/SA	1x1	30	SNBS 6x1000x1000	SNBS 6x1000x1000/SA
3/8"	9	1x20	1	SNBR 9x1x20	SNBR 9x1x20/SA	1x1	20	SNBS 9x1000x1000	SNBS 9x1000x1000/SA
1/2"	13	1x14	1	SNBR 13x1x14	SNBR 13x1x14/SA	1x1	15	SNBS 13x1000x1000	SNBS 13x1000x1000/SA
5/8"	16	1x12	1	SNBR 16x1x12	SNBR 16x1x12/SA	1x1	12	SNBS 16x1000x1000	SNBS 16x1000x1000/SA
3/4"	19	1x10	1	SNBR 19x1x10	SNBR 19x1x10/SA	1x1	10	SNBS 19x1000x1000	SNBS 19x1000x1000/SA
1"	25	1x8	1	SNBR 25x1x8	SNBR 25x1x8/SA	1x1	8	SNBS 25x1000x1000	SNBS 25x1000x1000/SA
1- 1/4"	32	1x6	1	SNBR 32x1x6	SNBR 32x1x6/SA	1x1	6	SNBS 32x1000x1000	SNBS 32x1000x1000/SA
1- 1/2"	40	1x4	1	SNBR 40x1x4	SNBR 40x1x4/SA	1x1	4	SNBS 40x1000x1000	SNBS 40x1000x1000/SA
2"	50	1x4	1	SNBR 50x1x4	SNBR 50x1x4/SA	1x1	4	SNBS 50x1000x1000	SNBS 50x1000x1000/SA

Tolerances - Rolls & Sheets			
Thickness	Thickness tolerance	Length tolerance	Width tolerance
6-25 mm	±2 mm	±1.5%	-20 mm
32-50 mm	±3 mm		+40 mm

Tolerances - Tubes (foam core only)		
Internal Diameter (ID)	Target	Target Tolerance
	ID + 1 mm	-1 mm, +4 mm (for ID ≤100 mm)
		-1 mm, +6 mm (for ID >100 mm)
Thickness	≤6 -16 mm: ±1.5 mm	
	19-25 mm : ±2.5 mm	
	≥32 mm ±3 mm	
Length	±1.5%	

Accessories	Unit
SCUDOFLEX® NBR Glue	2.5 L

PERFORMANCE & COMPOSITION

This elastomeric thermal insulation product, **SCUDOFLEX®** NBR, features a flexible black composition available in both tube and sheet formats. To meet specific project requirements, it offers three surface finishes: standard unfaced, glass cloth facing, or aluminum foil facing.

Category	Technical Parameter	Specification / Value	Standard Reference
Fire Safety	Surface Flammability	FSI < 25 / SDI < 50	ASTM E84
	Fire Rating Class	Class 0	BS 476 Part 6 & 7
	Plastic Flammability	HF-1, V-0, 5VA	UL 94
	Factory Mutual Status	Certified / Approved	FM 4924
	Smoke & Toxicity Levels	Compliant / Passed	IMO MSC 61(67)
Physical Properties	Core Material Density	240-70 kg/m ³	ASTM C302
	Vapor Diffusion Resistance	μ>17,000	BS EN 12086
	Water Vapor Permeability	1.56 E-09 g/m ² .s.Pa	ASTM E96
	Moisture Absorption	0.06% (by volume)	ASTM C209
Thermal Performance	Heat Transfer Coefficient (10 °C)	0.032 W/m·K	ASTM C518
	Heat Transfer Coefficient (23 °C)	0.033 W/m·K	ASTM C518
	Heat Transfer Coefficient (35 °C)	0.035 W/m·K	ASTM C518
Durability & Risk	Corrosive Tendency	Safe for Steel, Stainless, & Copper	DIN 1988
	Water Soluble Chlorides	< 0.05%	DIN 1988
	Acidity/Alkalinity (pH)	7.3	ASTM C871
	Compression Set	31.23% (at 25 mm)	ASTM D3574
	Dimensional Stability (Shrink)	0% at -80 °C / 4% at +104 °C	ASTM C534
Environmental	Ozone Depletion (ODP)	0	—
	Global Warming (GWP)	< 5	—
	Chemical Composition	CFC, HCFC, Dust, Fiber, & Asbestos Free	—
Biological/Health	Fungal Resistance	No Growth Observed	ASTM G21
	Bacterial Resistance	No Growth Observed	ISO 22196
	Ozone Degradation Resistance	Excellent	ASTM D1149
	Total VOC Emissions (24 hr)	< 0.5 mg/m ² /hr	ASTM D5116
	RoHS Compliance	Fully Compliant	RoHS 3 2015/863

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