MIRACLE HILL
CHINA REFRIGERATION

INSULATION MATERIALS

GEL FOAMING

COOLING&HEATING - REFRIGERATION
PIPE PROTECTION
CONSTRUCTION

Contacts Here

www.cnrefri.com

INSULATION MATERIALS

GEL FOAMING

INSULATION PIPES

Description

With the advanced technology “Gel Foaming”, the closed cell structure of NBR / Rubber is complete. This foam pipe has an excellent performance of thermal conductivity, water vapor resistant and fire resistant.

Application

Apply to Refrigeration, cooling & heating system, hot water pipes.

Certificates

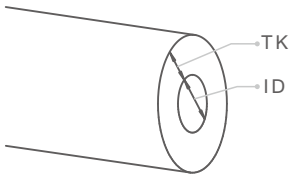
FM APPROVED Intertek GREENGUARD® Indoor Air Quality Certified

Tech.

NO.: MDHIPB0403
DATE:2017-10-11

Material: NBR

Class:	class 1	class 0
Color:	Black	Blue
	Red	Orange



ID=OD of metal pipe.

Physical Properties	Class 1	Class 0
Cell Structure	Closed Cell	Closed Cell
Density kg/m³	55±5	55±5
Thermal Conductivity | Mean Temp	-4°F(-20°C) 32°F(0°C) 104°F(40°C)	-4°F(-20°C) 32°F(0°C) 104°F(40°C)
BTU.in/ft2.hr.oF W/(m • k) | K-value	0.22(0.030) 0.23(0.032) 0.26(0.037)	0.22(0.030) 0.23(0.032) 0.26(0.037)
Water Vapor Permeability g/(m • s • Pa)	$1.96x10^{-11}$	$1.96x10^{-11}$
Moisture Resistance(μ value)	Moisture Resistance(μ ≥10000)	Moisture Resistance(μ ≥10000)
Flammability Smoke Density	V-0 25/50 self extinguishing Class1 Pass	V-0 25/50 self extinguishing Class1 Pass
Water absorption(weight %)	≤5	≤5
Flexibility	Excelent	Excelent
Ozone Resistance	No crack	No crack
Work Temperature	-70°F to -257°F(57°C to + 125°C)	-70°F to -257°F(57°C to + 125°C)

Specification

ID		THICKNESS mm / inch																			
mm	inch	9	3/8"	13	1/2"	15	5/8"	20	3/4"	25	1"	30	1 1/8"	32	1 1/4"	35	1 3/8"	38	1 1/2"	40	1 5/8"	50	1 7/8"
6	1/4"	✓		✓		✓		✓		✓													
10	3/8"	✓		✓		✓		✓		✓		✓											
13	1/2"	✓		✓		✓		✓		✓		✓		✓									
16	5/8"	✓		✓		✓		✓		✓		✓		✓									
19	3/4"	✓		✓		✓		✓		✓		✓		✓									
22	7/8"	✓		✓		✓		✓		✓		✓		✓									
25	1"	✓		✓		✓		✓		✓		✓		✓									
28	1 1/8"	✓		✓		✓		✓		✓		✓		✓		✓							
32	1 1/4"	✓		✓		✓		✓		✓		✓		✓		✓							
35	1 3/8"	✓		✓		✓		✓		✓		✓		✓		✓							
38	1 1/2"	✓		✓		✓		✓		✓		✓		✓		✓							
43	1 5/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
45	1 3/4"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
48	1 7/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
54	2 1/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
57	2 1/4"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
60	2 3/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
67	2 5/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
76	3"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
80	3 1/4"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	

www.cnrefri.com mh@cnrefri.com +86 574 8732 1199 +86 18067565376

INSULATION MATERIALS

GEL FOAMING

INSULATION SHEET

Description

With the advanced technology “Gel Foaming”, the closed cell structure of NBR / Rubber is complete. This foam sheet has an excellent performance of thermal conductivity, water vapor resistant and fire resistant.

Application

Apply to Refrigeration, cooling & heating system, apply to different shapes of areas.

Certificates

FM APPROVED

Intertek

GREENGUARD® Indoor Air Quality Certified

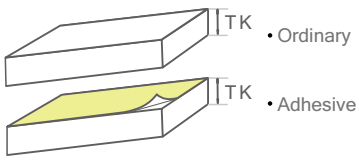
Tech.

NO.: MDHISB06
DATE:2017-10-20

Material: NBR

Class:	class 1	class 0
Color:	▪ Black	▪ Blue
	▪ Red	▪ Orange

Adhesive: optional



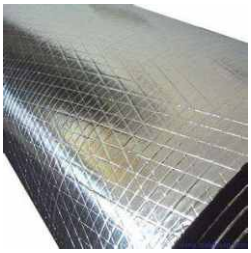
Physical Properties	Class 1	Class 0
Cell Structure	Closed Cell	Closed Cell
Density kg/m³	55±5	55±5
Thermal Conductivity | Mean Temp	-4°F(-20°C) 32°F(0°C) 104°F(40°C)	-4°F(-20°C) 32°F(0°C) 104°F(40°C)
BTU.in/ft2.hr.oF W/(m • k) | K-value	0.22(0.030) 0.23(0.032) 0.26(0.037)	0.22(0.030) 0.23(0.032) 0.26(0.037)
Water Vapor Permeability g/(m • s • Pa)	$1.96x10^{-11}$	$1.96x10^{-11}$
Moisture Resistance(μ value)	Moisture Resistance(μ ≥10000)	Moisture Resistance(μ ≥10000)
Flammability Smoke Density	V-0 25/50 self extinguishing Class1 Pass	V-0 25/50 self extinguishing Class1 Pass
Water absorption(weight %)	≤5	≤5
Flexibility	Excelent	Excelent
Ozone Resistance	No crack	No crack
Work Temperature	-70°F to -257°F(57°C to + 125°C)	-70°F to -257°F(57°C to + 125°C)

Specification

THICKNESS		L x W		L x W	
mm	inch	m	m	m	m
6	1/4"	20	1.5	20	1.22
10	3/8"	20	1.5	20	1.22
13	1/2"	15	1.5	15	1.22
15	5/8"	15	1.5	15	1.22
19	3/4"	10	1.5	10	1.22
22	7/8"	10	1.5	10	1.22
25	1"	10	1.5	10	1.22
30	1 1/8"	8	1.5	8	1.22
32	1 1/4"	8	1.5	8	1.22
35	1 3/8"	5	1.0	5	1.0
38	1 1/2"	5	1.0	5	1.0
40	1 5/8"	5	1.0	5	1.0
50	2"	2	1.0	2	1.0

Other Specification

Compound Aluminum Foil



THICKNESS		L x W	
mm	inch	m	m
6	1/4"	2	1.2
10	3/8"	2	1.2
13	1/2"	2	1.2
15	5/8"	2	1.2
19	3/4"	2	1.2
22	7/8"	2	1.2
25	1"	2	1.2
30	1 1/8"	2	1.2
32	1 1/4"	2	1.2
35	1 3/8"	2	1.0
38	1 1/2"	2	1.0
40	1 5/8"	2	1.0
50	2"	2	1.0

• If you didn’t find the size you need, please feel free to contact us.

www.cnrefri.com mh@cnrefri.com +86 574 8732 1199 +86 18067565376

INSULATION MATERIALS

GEL FOAMING + COMPOUND

FLUOROCARBON COVERING

Description

The compound insulation pipe is combined with fluorocarbon materials and Rubber. This foam pipe with the fluorocarbon covering has advantages as below:

1. Anti-UV; 2. Antioxidation; 3. Fire Retardant; 4. Waterproof
5. Chemical Proof; ; 6. Tear Resistant;7. Rub Resistance.

Application

Apply to Refrigeration, hospitals, industry areas, out doors.

Certificates

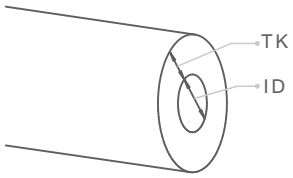
FM APPROVED · Intertek · GREENGUARD Indoor Air Quality Certified

Tech.

NO.: MDHIPFP0403
DATE:2017-10-20

Material: NBR, Fluorocarbon Fibre
Class: class 1 | class 0
Color of Covering:

Black	Blue
Red	Orange



ID=OD of metal pipe.

Physical Properties	Class 1	Class 0
Cell Structure	Closed Cell	Closed Cell
Density kg/m³	55±5	55±5
Thermal Conductivity | Mean Temp	-4°F(-20°C) 32°F(0°C) 104°F(40°C)	-4°F(-20°C) 32°F(0°C) 104°F(40°C)
BTU.in/ft2.hr.oF W/(m • k) | K-value	0.22(0.030) 0.23(0.032) 0.26(0.037)	0.22(0.030) 0.23(0.032) 0.26(0.037)
Water Vapor Permeability g/(m • s • Pa)	$1.96x10^{-11}$	$1.96x10^{-11}$
Moisture Resistance(μ value)	Moisture Resistance(μ ⩾10000)	Moisture Resistance(μ ⩾10000)
Flammability Smoke Density	V-0 25/50 self extinguishing Class1 Pass	V-0 25/50 self extinguishing Class1 Pass
Water absorption(weight %)	⩽5	⩽5
Flexibility	Excelent	Excelent
Ozone Resistance	No crack	No crack
Work Temperature	-70°F to -257°F(57°C to + 125°C)	-70°F to -257°F(57°C to + 125°C)

Physical Properties(Fluorocarbon Covering)	
Work Temperature	-10°C to + 180°C
Fire Retardant Grade	A
Peel Strength(N/M)	⩾350
Burst Strength(Mpa)	⩾2.0
Tensile Strength(N/5cm)	Longitudinal≥1180 Transverse≥820

Specification

ID		THICKNESS mm / inch													
mm	inch	9 3/8"	13 1/2"	15 5/8"	20 3/4"	25 1"	30 1 1/8"	32 1 1/4"	35 1 3/8"						
6	1/4"	✓	✓	✓	✓	✓									
10	3/8"	✓	✓	✓	✓	✓	✓								
13	1/2"	✓	✓	✓	✓	✓	✓	✓							
16	5/8"	✓	✓	✓	✓	✓	✓	✓							
19	3/4"	✓	✓	✓	✓	✓	✓	✓							
22	7/8"	✓	✓	✓	✓	✓	✓	✓							
25	1"	✓	✓	✓	✓	✓	✓	✓							
28	1 1/8"		✓	✓	✓	✓	✓	✓	✓						
32	1 1/4"		✓	✓	✓	✓	✓	✓	✓						
35	1 3/8"		✓	✓	✓	✓	✓	✓	✓						
38	1 1/2"		✓	✓	✓	✓	✓	✓	✓						
43	1 5/8"		✓	✓	✓	✓	✓	✓	✓						
45	1 3/4"		✓	✓	✓	✓	✓	✓	✓						
48	1 7/8"		✓	✓	✓	✓	✓	✓	✓						
54	2 1/8"		✓	✓	✓	✓	✓	✓	✓						
57	2 1/4"		✓	✓	✓	✓	✓	✓	✓						
60	2 3/8"		✓	✓	✓	✓	✓	✓	✓						

www.cnrefri.com mh@cnrefri.com +86 574 8732 1199 +86 18067565376

INSULATION MATERIALS

GEL FOAMING

PRE CUT PIPES

Description

The Pre Cut Pipe is produced based on our insulation pipe. This foam materials can be closed by the adhesive material attached on the pipe. More convenient to protect the metal pipes.

Application

Apply to Refrigeration, cooling & heating system, hot water pipes.

Certificates

FM APPROVED

Intertek

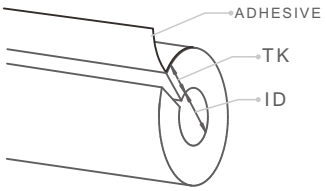
GREENGUARD® Indoor Air Quality Certified

Tech.

NO.: MDHIPB0403
DATE:2017-10-11

Material: NBR

Class:	class 1	class 0
Color:	Black	Blue
	Red	Orange



ID=OD of metal pipe.

Physical Properties	Class 1	Class 0
Cell Structure	Closed Cell	Closed Cell
Density kg/m³	55±5	55±5
Thermal Conductivity | Mean Temp	-4°F(-20°C) 32°F(0°C) 104°F(40°C)	-4°F(-20°C) 32°F(0°C) 104°F(40°C)
BTU.in/ft2.hr.oF W/(m • k) | K-value	0.22(0.030) 0.23(0.032) 0.26(0.037)	0.22(0.030) 0.23(0.032) 0.26(0.037)
Water Vapor Permeability g/(m • s • Pa)	$1.96x10^{-11}$	$1.96x10^{-11}$
Moisture Resistance(μ value)	Moisture Resistance(μ ≥10000)	Moisture Resistance(μ ≥10000)
Flammability Smoke Density	V-0 25/50 self extinguishing Class1 Pass	V-0 25/50 self extinguishing Class1 Pass
Water absorption(weight %)	≤5	≤5
Flexibility	Excelent	Excelent
Ozone Resistance	No crack	No crack
Work Temperature	-70°F to -257°F(57°C to + 125°C)	-70°F to -257°F(57°C to + 125°C)

Specification

ID		THICKNESS mm / inch																			
mm	inch	9	3/8"	13	1/2"	15	5/8"	20	3/4"	25	1"	30	1 1/8"	32	1 1/4"	35	1 3/8"	38	1 1/2"	40	1 5/8"	50	1 7/8"
6	1/4"	✓		✓		✓		✓		✓													
10	3/8"	✓		✓		✓		✓		✓		✓											
13	1/2"	✓		✓		✓		✓		✓		✓		✓									
16	5/8"	✓		✓		✓		✓		✓		✓		✓									
19	3/4"	✓		✓		✓		✓		✓		✓		✓									
22	7/8"	✓		✓		✓		✓		✓		✓		✓									
25	1"	✓		✓		✓		✓		✓		✓		✓									
28	1 1/8"	✓		✓		✓		✓		✓		✓		✓		✓							
32	1 1/4"	✓		✓		✓		✓		✓		✓		✓		✓							
35	1 3/8"	✓		✓		✓		✓		✓		✓		✓		✓							
38	1 1/2"	✓		✓		✓		✓		✓		✓		✓		✓							
43	1 5/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
45	1 3/4"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
48	1 7/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
54	2 1/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
57	2 1/4"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
60	2 3/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
67	2 5/8"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
76	3"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	
80	3 1/4"	✓		✓		✓		✓		✓		✓		✓		✓		✓		✓		✓	

www.cnrefri.com mh@cnrefri.com +86 574 8732 1199 +86 18067565376

INSULATION MATERIALS

GEL FOAMING

INSULATION TAPE

Description

The Insulation Tape is made from NBR/ foam rubber and adhesive material. It can be used specially for the insulation pipes as well as other refrigeration pipes.
Has better insulation performance than common PVC tapes.

Application

Apply to cover cracks and surface of different components in Refrigeration system, cooling & heating system to achieve heat preservation.

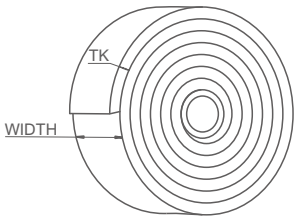
Certificates

FM APPROVED Intertek GREENGUARD® Indoor Air Quality Certified

Tech.

NO.: MDHITB3020
DATE:2017-10-11

Material: NBR+ Glue
Class: class 1



Physical Properties	Class 1	Class 0
Cell Structure	Closed Cell	Closed Cell
Density kg/m³	55±5	55±5
Thermal Conductivity | Mean Temp	-4°F(-20°C) 32°F(0°C) 104°F(40°C)	-4°F(-20°C) 32°F(0°C) 104°F(40°C)
BTU.in/ft2.hr.oF W/(m • k) | K-value	0.22(0.030) 0.23(0.032) 0.26(0.037)	0.22(0.030) 0.23(0.032) 0.26(0.037)
Water Vapor Permeability g/(m • s • Pa)	$1.96x10^{-11}$	$1.96x10^{-11}$
Moisture Resistance(μ value)	Moisture Resistance(μ ≥10000)	Moisture Resistance(μ ≥10000)
Flammability Smoke Density	V-0 25/50 self extinguishing Class1 Pass	V-0 25/50 self extinguishing Class1 Pass
Water absorption(weight %)	≤5	≤5
Flexibility	Excelent	Excelent
Ozone Resistance	No crack	No crack
Work Temperature	-70°F to -257°F(57°C to + 125°C)	-70°F to -257°F(57°C to + 125°C)

Specification

TK		WIDTH (mm) x LENGTH (m)
mm	inch	
6	1/4"	30mm x 20m or 50mm x 20m
10	3/8"	
13	1/2"	
16	5/8"	
19	3/4"	
22	7/8"	
25	1"	

· If you didn't find the size you need, please feel free to contact us.

www.cnrefri.com mh@cnrefri.com +86 574 8732 1199 +86 18067565376