

# MSI-MK<sup>®</sup> SYSTEM

MSI-MK<sup>®</sup> Insulation Systems is specially designed for projects that require a quick installation. Due to the training we provide the system can be installed by personnel without previous experience as long as they are trained and certified by our course, which is constantly updated.

- → The system combines the technical advantages of Polyisocyanurate and quick installation.
- → Durability is 3 times longer than insulating foams due to its mechanical protection and moisture barrier.
- → Its mechanical protection guarantees the long life of the insulation, preventing premature aging and loss of insulating properties of the system.
- → Integrated moisture and vapor barrier have been developed with a special HDPE film that provides a high barrier to moisture, preventing water and ice inside the insulation.
- → Polyisocyanurate is a rigid modified polyurethane with superior performance, it is a closed cell insulation.
- The insulation has fire retardant, drowns the flame, complies with ASTM E84.

INSULATION + VAPOR BARRIER + MOISTURE BARRIER + MECHANICAL PROTECTION

### **ALL IN ONE SYSTEM**

- → Flame spread with index of 25 or less and smoke generation of 450 or less according to ASTM E84.
- → The system has food- grade mechanical protection and is easy to clean. Specially design for areas that require cleaning and neatness.

 $\mathsf{MSI\text{-}MK}^{\circledR}$  is the result of many years of research and tests in order to meet the requirements in Commercial Buildings.

It is a complete system that includes **Insulation + Moisture Barrier + Vapor Barrier + Mechanical Protection** in the same unit.

Ask for the MSI-MK<sup>®</sup> which includes: Pipes, Fittings, Supports, Connections and Sealants in order to achieve a professional hermetically sealed installation.

#### **Environment Data**

We are committed with the environment since none of our systems contain (CFC) chlorofluorocarbon or (HCFC) hydrochlorofluorocarbon as blowing agents, in strict compliance with the Montreal Protocol and the Clean Air Act. We manufacture our systems with hydrocarbon blowing agents that do not provide a potential degradation of the ozone layer.



## **THICKNESSES CHART**

Regular Conditions Considerations						
Conditions	Diameter	50°F / 10°C	35°F / 2°C	0°F / -18°C	-20°F / -29°C	
Relative Humidity 70%, Temperature Conditions 85°F / 29°C	Pipe Size ID 3/8" - 1 1/8"	1"	1"	1 1/4"	1 1/4"	
	Pipe Size ID 1 3/8" -2 1/8"	1"	1"	1 1/4"	1 1/4"	
	Pipe Size ID 2 3/8" - 2 5/8"	1"	1"	1 1/4"	1 1/4"	
	Pipe Size ID 3 1/8 - 6"	1"	1 1/4"	1 1/4"	1 3/4"	
Mild Conditions Considerations						
Conditions	Diameter	50°F / 10°C	35°F / 2°C	0°F / -18°C	-20°F / -29°C	
Relative Humidity 50%, Temperature Conditions 80°F / 27°C	Pipe Size ID 3/8" - 2 5/8"	1"	1"	1"	1"	
	Pipe Size ID 3 1/8" - 6"	1"	1"	1"	1 1/4"	
Critical Conditions Considerations						
Conditions	Diameter	50°F / 10°C	35°F / 2°C	0°F / -18°C	-20°F / -29°C	
Relative Humidity 80%, Temperature Conditions 90°F / 32°C	Pipe size ID 3/8" - 1 5/8"	1 1/4"	1 1/4"	1 3/4"	2 1/4"	
	Pipe Size ID 2 1/8" - 3 1/8"	1 1/4"	1 1/4"	1 3/4"	2 1/4"	
	Pipe Size ID 3 5/8" - 6"	1 1/4"	1 3/4"	2 1/4"	2 1/4"	

This Thicknesses chart is to prevent Outer Insulation Surface Condensation and to maximize Thermal Insulation efficiency in order to reduce energy losses. The considerations apply for commercial indoor building conditions. For outdoor conditions please contact our Technical Department.

INSULATION + VAPOR BARRIER + MOISTURE BARRIER + MECHANICAL PROTECTION **ALL IN ONE SYSTEM** 

## **DATA SHEET**

Physical Properties	Standard Method	Characteristics	
Density	ASTM D1622	2.1 lbs / ft3	
Thermal conductivity K- Factor	ASTM C578	0.190 Btu / hr * Pies2 °F/in	
@75°F Aged 180 Days			
Compressive strength	ASTM D1621	39 psi	
Closed cell content	ASTM D6226	90.00%	
Vapor barrier permeability	ASTM E96	0.02 perms	
Water absorption	ASTM C272	0.7 % By Volume	
Burning Characteristics	ASTM E84	50/ 50 Flame Spread	
Temperature Range	ASTM C591	-297°F a +300°F	
Insulation Color	-	Blue	
Finish Color		White	

