

# TECHNICAL DATA SHEET

# PURIOS 2000

## Closed-Cell Spray Polyurethane Foam Insulation System

### GENERAL INFORMATION

Purios 2000 is a two component, **2.0lb closed cell**, spray applied rigid polyurethane foam. Purios 2000 provides **high-performance thermal insulation, air barrier**. No blowing agent lean the ozone layer containing. Product applications: ceilings, walls.

**Component A** (Purios A) polymeric diphenylmethane 4, 4' diisocyanate.

**Component B** (Purios 2000) mixture of polyols with additives.

### ADVANTAGES

Very good adhesion to the surface - it does not require additional adhesives and connectors

Thermal insulation in a single application process obtained by the closed-cell foam structure

Speed applications not requiring the storage of dealing with large storage space, as in the case of mineral wool or polystyrene (EPS, XPS)

### FOAM PROPERTIES

<u>Physical Properties</u>	<u>Test Method</u>	<u>Value</u>
Core Density (pcf)	ASTM D1622	2.05 – 2.25
Compressive strength at 10 % strain (psi)	ASTM D1623	≥ 28.0
Water Vapor Permeability (Perms)	ASTM E96	1.92
Closed Cell Content (%)	ASTM D6226	min. 90
Thermal resistance (Fht <sup>2</sup> F/Btu)	ASTM C 518	7.22 @ 1"

<u>Fire Properties</u>	<u>Test Method</u>	<u>Value</u>
Surface Burning Characteristics	ASTM E 84	Class A

### LIQUID COMPONENT PROPERTIES

<u>Property</u>	<u>Purios A – component A pMDI</u>	<u>Purios 2000 – component B Resin</u>
Viscosity 77 °F (cps)	150 – 250	500 – 1000
Specific Gravity 77 °F	1.22 – 1.24	1.1 – 1.2
Mixing Ratio (By Volume)	100	100
Shelf life	12 months	6 months
Storage temperature	50 °F – 86 °F	41 °F – 77 °F

### REACTIVITY PROFILE

Cream time (s)	2 – 4
Gel time (s)	6 – 8

### APPLICATION

#### Mixing ratio

Components **Purios 2000** are applied by spraying using a dedicated spray equipment in relation metering 1: 1 by volume. The main purpose of the system is thermal insulation inside the building.

#### Surface preparation and application system

The surface which will be applied polyurethane Purios 2000 System must be clean, dry, stable surface free of dust, oil to ensure adequate adhesion to the substrate. In the case of metal surfaces, they should be free from metal oxides and rust.

Purios 2000 System can be applied to any type of substrate, except for substrates with a thermoplastic material, galvanized sheet (unprepared), glass and painted surfaces before they are matt by chemical or mechanical.

#### The thickness of the spray

The recommended thickness of the spray layer is controlled by choosing a suitable nozzle and the speed of the application and **should be in the range between 2 – 4 in.** Keep in mind that the quality of the insulation is better if the layers are applied comparable thickness. **One layer should never exceed the upper range of thickness** due to problems of heat release during the foaming reaction and weaken the dimensional stability of the foam.

The recommended number of layers - a minimum of 2 - the minimum total thickness of 1,2 in spraying.

### RECOMMENDED PROCESSING PARAMETERS

TEMPERATURE HEATING BLOCKS	104 °F – 131 °F
TEMPERATURE HOSE	104 °F – 131 °F
PRESSURE	1300 – 1600 psi

Please note that foam quality depends on the outside conditions. During the execution of the application should be corrected according to the changing external conditions.

#### SAFETY RULES

Purios 2000 Systems for correct use does not pose a threat to human life and health.

Before working with the Purios 2000 System refer to the content and adhere to the recommendations contained in Material Safety Data Sheet and Technical Information. Avoid contact of components with skin and eyes. During the application used clothing and gloves, use face protection and breathing apparatus.

**In case of doubt, or when disturbing adverse events during application, discontinue use and contact the manufacturer of the system.**

**Note:** The above values are average values obtained from laboratory experiments and should serve only as guidelines. During the work in other possible conditions, it's possible to obtain differing results from given. Overall densities consider the thickness of application, environmental conditions, etc.

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