

TECHNICAL DATA SHEET

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ECOSPRAY RS3045



ECOSPRAY RS3030 is a self-extinguishing rigid polyurethane spray system for the insulation of roofing, walling, vessels and tanks. The foam has a good surface finish with excellent cell structure, creating a monolithic layer and good inter-laminar adhesion. The system uses ECOMATE® as the blowing agent which has zero Ozone Depleting Potential and zero Global Warming Potential. It is processed through high pressure airless spray dispensing equipment.

LIQUID COMPONENT PROPERTIES

PART A		PART B	
RESIN (POLYOL BLEND)		RESINATE 200 MDI	
APPEARANCE	Straw Coloured Liquid	APPEARANCE	Dark Brown Liquid
DENSITY	1.10 g/ml	DENSITY	1.22 - 1.23 g/ml
VISCOSITY AT 20°C	970 ± 75 mPa.s	VISCOSITY AT 20°C	250 ± 50 mPa.s

PHYSICAL PROPERTIES

MIX RATIO BY VOLUME	1:1 (v/v) (Polyol Part A : MDI Part B)
FREE RISE DENSITY (CORE)	40 - 43 kg/m ³ (Reef) 42 - 43 kg/m ³ (Coastal)
TYPICAL APPLIED DENSITY (CORE) Based on one pass	± 45 - 50 kg/m ³ (Reef) ± 48 - 53 kg/m ³ (Coastal)
THERMAL CONDUCTIVITY	0.025 w/m.K @ mean temperature of 22°C
TYPICAL COMPRESSIVE STRENGTH	250 kPa

TYPICAL REACTION PROFILE

CREAM TIME	GEL TIME	RISE TIME	TACK FREE
2 - 4 Seconds	10 - 12 Seconds	24 - 26 Seconds	13 - 16 Seconds

Note: Reaction profiles based on lab results using a drill-mix at 1000RPM at 20°C

INSTALLATION GUIDELINES

MATERIAL PRECONDITIONING:

The use of band heaters might be required to maintain the materials in the drum at optimum temperatures of 25 - 35°C. Should the spray equipment have short bypass recirculation facility then this facility can be used to warm the chemicals accordingly.

EQUIPMENT OPERATION:

Always consult equipment manufacturer's instructions. Typical processing data are:

- ◊ Operating pressure 1500 - 2500 psi / 100 - 170 bar pressure.
- ◊ Primary heaters and hose heaters to operate at 35°C - 40°C depending on ambient conditions.

SUBSTRATE PREPARATION:

The substrate should be clean, dry and free of grease, oil, solvent or other contaminants which will interfere with proper adhesion and/or polyurethane insulation quality. In some cases, such as when spraying onto porous surfaces a primer such as **ULTRACOTE 520 - 020** should be used to enhance the foam adhesion to the substrate. Please consult the technical data sheet on **ULTRACOTE 520 - 020** for further information. Spray foam insulation must not be applied to damp substrates. Do not apply spray foam in rain, snow, fog, mist or when the substrate temperature is less than 3°C above the dew point. This product is suitable for spraying on substrates with temperatures in the range of 15°C - 50°C.

CURE TIME & RECOAT

This product shall be applied in one or more passes at no less than 10mm and no more than 25mm thickness per pass. Each pass should be allowed to cure for at least 5 minutes before the next pass is applied. Feathering should be minimized by sharply lapping each pass. Feathering of layer thickness of less than 10mm should be avoided on horizontal surfaces at edge termination or in levelling of ponded areas.

Externally applied insulation requires application of an appropriate membrane such as **ULTRASEAL ACRYLIC** for protection over the foam from weathering. Please consult the technical data sheet on **ULTRASEAL ACRYLIC** for further information. The first coat of **ULTRASEAL ACRYLIC** should be applied, weather permitting, no earlier than 1 hour and within 72 hours of insulation application. If more than 72 hours lapse between application of insulation and the membrane application, the insulation surface shall be inspected for ultra-violet light and/or oxidation degradation, which will be indicated by a dusting of the foam surface.

Should such degradation occur, the insulation surface shall be brushed with a stiff bristle broom or mechanically scuffed and either primed or treated with an additional pass of spray foam prior to membrane application.

STORAGE REQUIREMENTS

The product must be stored out of direct sunlight and weather. The containers must be kept sealed against moisture in storage. Ideal storage temperature is approximately 20°C. Under these conditions the product will remain stable for 6 months.

SAFETY CONSIDERATIONS

Always wear appropriate PPE. Ensure adequate ventilation during mixing and dispensing to avoid inhalation of vapours. It is required to make use of an appropriate respirator during spraying and ensuring of adequate fresh air supply. Refer to the MSDS for detailed safety information.

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