



Quality insulation
with a personal touch

TECHNICAL DATASHEET NESTAAN® POLYURETHANE SYSTEMS



NESTAAN® PQ733/35

Components	A-Component: NESTAAN® POLY PQ733/35 B-Component: NESTAAN® ISO 30
Material description	2 component rigid PU pour foam system. Contains new generation blowing agents.
Application	NESTAAN® PQ733/35 is a two component PUR foam system mainly used as thermal insulation material in industrial applications. Processing should preferably be done using high or low pressure 2KPU dispensing machines, due to the delayed reactivity also suitable for hand mix operations.
Application areas	Thermal insulation material in industrial applications, such as tanks, pipe insulations, panel production etc.

Product properties			
	A-Component	B-Component	Unit
Appearance	Yellowish liquid	Dark brown liquid	
Specific mass 20°C	1110 – 1130	1210 – 1250	g/l
Viscosity 20°C	300 - 700	150 - 250	mPa.s
Mixing ratio			
Parts by weight	100	109 – 111	
Parts by volume	100	100	

Typical foaming properties (handmix, 20°C, 3000 rpm)			
		Value	Unit
Reactivity	Cream time (CT)	32 ± 2	s
	Gel time (GT)	160 ± 16	s
Density	Core density	33 ± 3	kg/m ³
	Cup density	38 ± 3	kg/m ³

Packaging	
NESTAAN® POLY PQ733/35 can be supplied in	
Plastic cans	30 kg nett
Metal drums	60 or 225 kg nett
IBC's	1125 kg nett
Bulk	23000 kg nett
NESTAAN® ISO 30 can be supplied in	
Plastic cans	30 kg nett
Metal drums	60 of 250 kg nett
IBC's	1250 kg nett
Bulk	23000 kg

Shelf life and storage			
	A-Component	B-Component	Unit
Storage temperature	5 - 30	5 - 30	°C
Shelf life (in closed, sealed packaging)	3	6	months



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Processing

NESTAAN® PQN733/35 shows a good adhesion to most common facing materials, but the temperature of all parts in contact with the reacting foam should be at least 25°C to prevent delamination of the foam.

Some facing materials, like aluminum or stainless steel, should be grinded or be treated with a suitable primer. In case of doubt the adhesion should be tested on the facing or equivalent materials.

When large volumes (> 1 m³) have to be filled, care should be taken with the exothermic reaction, which occurs in all polyurethane foam reactions. A sufficient cooling period should be taken in mind before applying the next batch.

Due to the balanced reactivity of this system it is very well suited to produce quality foam using basic tools. The reaction start is delayed, so longer pouring times can be achieved.

The reactivity of all polyurethane systems strongly depends on ambient and material temperature, low temperatures give a slower reactivity, while high temperatures give a fast reactivity. The ideal temperature is 20°C. It is necessary to bring the containers to room temperature before processing. Just before processing both components should be mixed in the correct mixing ratio using a high speed propeller mixer (3000 rpm) until homogeneous without stripes of unmixed material which can lead to inferior foam. When calculating the needed foam amount take into account that there will be a loss of material due to remains in the mixing container, this can be 10-15% when mixing small volumes. Remains in the mixing container should not be scraped out, because they are not properly mixed.

After processing the tools can be cleaned with a suitable solvent.

Operating temperatures for applied material: -50°C to +90°C.

Typical foam properties

	Value	Unit	Method
Applied density	35 – 50	kg/m ³	EN 1602
Compressive strength	> 180	kPa	EN 826
Water absorption	< 0,3	kg/m ²	EN 1609
Thermal conductivity 10°C (λi)	< 0,023	W/m.K	EN 12667
Closed cell content	> 90	%	ISO 4590
Dimensional stability -20°C +70°C/90% RH	< 1 < 5	%	EN 1604
Fire classification*	B3 <125 F	-- mm --	DIN4102, t.1 ISO 3582 EN 13501

*Note: numerical flame spread ratings or fire classifications are not intended to reflect hazards presented by this or any other material in actual fire conditions.

Remarks

All our products must be processed by competent persons. In case of doubt you must contact us. The fire risk must be taken into account when processing polyurethane. All necessary measures must be taken to prevent firing. Suitable fire extinguishers must also be present in the immediate vicinity.

Our recommendations with regard to technical application, whether verbal, in writing or by means of tests have been drawn up to the best of our knowledge and understanding, but are intended as indicative only, also in relation to any third party entitlements. They do not discharge you of your obligation to check products delivered by us for their suitability for the intended procedures and purposes.

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