

HCFC-141b blown foam system for discontinuous filling of pipes
providing improved processing properties: Daltofoam TE 24201/Suprasec 5005

Pipe insulation

fact sheet



PRODUCT INTRODUCTION

Daltofoam TE 24201 is a fully formulated polyol system containing water, catalyst, silicone surfactant and HCFC-141b, developed for the discontinuous filling of pipes. The use of HCFC-141b, having ozone depletion potential and global warming potential, is restricted in a number of countries and will be phased out in the future. It is advised to check the local legislation before implementing this system in the production.

PRODUCT CHARACTERISTICS

Property	Unit	Value
Appearance	–	pale yellow liquid
Hydroxyl value	mg KOH/g	445
Viscosity at 25°C	mPa.s	470
Density at 25°C	kg/l	1.09
Flash point	°C	>100
Reactivity in foam test*		
– Cream time	s	44
– String time	s	173
Free rise density* (bagfoam)	kg/m ³	36

Typical Properties:

The typical physical properties are published as a guide to potential users of the product. A sales specification is published separately.

* measured at a temperature of 20°C on a laboratory bagfoam
mixing ratio: 100 pbw Daltofoam TE 24201 and 160 pbw Suprasec 5005

KEY FEATURES

Daltofoam TE 24201 provides a broad processing window through low system reactivity. Despite the low reactivity, a very good adhesion between foam and pipe components, i.e. steel and HDPE casing pipe, is maintained. Furthermore, Daltofoam TE 24201 provides very good flow properties. Excellent thermal and mechanical foam properties can be obtained.

- HCFC-141b/water dual blown system
- low viscosity
- no surface friability
- very good flow properties
- large pipe diameters easy to fill
- excellent long-term thermal resistance
- complies with EN253 norm

The recommended mixing ratio of Daltofoam TE 24201 and Suprasec 5005 that will give the best properties is:

100 pbw Daltofoam TE 24201 and 160 pbw Suprasec 5005

FOAM PROPERTIES

Foam property	Unit	Average value	EN253 requirement
Core density	kg/m ³	73.5	60
Overall density	kg/m ³	93.5	80
Compressive strength	MPa	0.41	0.30
Water absorption	%	4.8	10
Axial shear strength at 23°C at 140°C	MPa	0.40 0.27	0.12 0.08
Tangential shear strength at 23°C	MPa	0.55	0.20
Thermal conductivity (50°C)	W/m.K	0.028	0.033
CCOT*	°C/30y	140	120

* calculated continuous operating time

The following properties were determined on pre-insulated DN50 pipes.

All material properties are fulfilling the requirements of the EN253 norm for buried pre-insulated pipes.

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