



Lacovyl® PE1311H

PVC for Plastisol

Technical datasheet

■ Type :

Lacovyl® PE1311H is a medium molecular weight homopolymer polyvinyl chloride. It is produced by KEM ONE emulsion polymerisation process and used to prepare plastisol pastes.

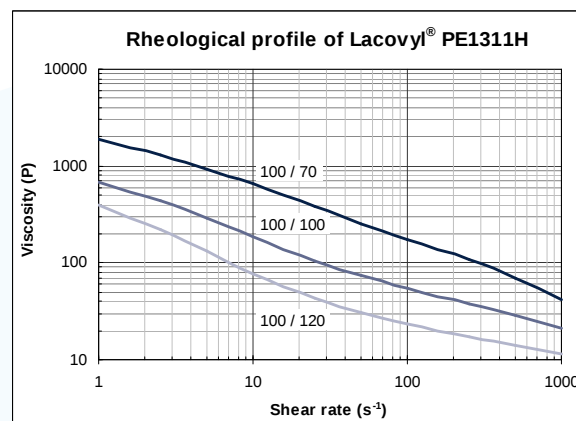
■ Main uses :

APPLICATION	COMPACT	FOAM
Flooring	■	■ ■
Wallcovering	■	■ ■
Coated Fabric	■ ■	■ ■
UBS	■ ■	
Cap sealant		
Dipping	■	
Rotational moulding		

■ Recommended application

■ Possible application

■ Viscosity curves:



Viscosity measurements of plastisols with 70, 100 and 120 phr DINP by rotational rheometer after 2h at 23°C ageing.

■ General characteristics :

Lacovyl® PE1311H gives a **very viscous plastisol** with a **very pseudoplastic behaviour**, suitable for **highly plastised formulations**. PE1311H can be used in **both compact and foam applications**, and it can be added in a formulation to adjust the rheological profile of a plastisol or to obtain very **soft coatings**. PE1311H is the choice resin for applications such as **automotive under-body sealants (UBS)** and **thick foams**. Its excellent **fogging** characteristics make it suitable for automotive fabric coating.

CHARACTERISTIC	VALUE	METHOD
K-Value	70	ISO 1628-2
Viscosity number	125 ml/g	ISO 1628-2
Apparent bulk density	0,4 g/cm ³	ISO 60
Moisture content	< 0,25 %	ISO 1269
pH (Aqueous extract)	10	ISO 1060-2
Fineness (North Gauge)	120 µm	EN ISO 1524
Fogging (100°C/16hr)	< 0.5 mg/10 g	EN ISO 75201
Viscosity* at 5 s ⁻¹ (Equivalent Brookfield 20 rpm)	292 P or 29,2 Pa.s	EN ISO 3219
Viscosity* at 250 s ⁻¹	37 P or 3,7 Pa.s	EN ISO 3219

* viscosity measured with a mixture of PVC 100 / DINP 100 after 2 h of ageing at 23°C

■ Properties :

Résin

Lacovyl® PE1311H is a very fine particle size resin that can be used for very thin coatings.

Plastisol

Plastisols formulated with Lacovyl® PE1311H generally show a pseudoplastic behaviour. This allows the use of PE1311H in processes and applications that require a high degree of shear, like thin coating at high speed or high pressure spraying. It can also be used to adjust the rheological profile of a plastisol and increase its yield stress.

Compact coating

The highly pseudoplastic behaviour of plastisol containing Lacovyl® PE1311H allows coating an openwork substrate without plastisol going through. PE1311H is therefore used in fabric coatings, especially for car interiors. PE1311H is also the choice resin for applications processed by spraying, like automotive sealants, including UBS.

Cellular coating

Lacovyl® PE1311H allows to obtain foam with a very fine and homogeneous cell structure. Its pseudoplastic behaviour allows to produce thick or very thick foam while keeping its flexibility.



■ Packaging and storage :

Lacovyl® resins are supplied in 25 kg bags, wrapped on pallets. Resin must be stored in a dry place away from all heat sources, direct or indirect. The recommended storage time for this resin is 18 months maximum. For any information on the handling and precautions required when using Lacovyl® resins, please refer to the Material Safety Data Sheet, available on our website www.kemone.com (Links).

■ Lacovyl® range for plastisol :

GRADE	K-Value	APPLICATION		VISCOSITY	SELECTION CRITERIA
		Compact	Foam		
PA1384	69	■	■	Fluid	Copolymer, gelation improvement
PB1156	66		■	Viscous	Foam whiteness
PB1172H	67	■	■	Very fluid	Low-plasticised application, moulding
PB1202	67	■	■	Very fluid	Excellent filler acceptance
PB1302 / PB1302H	70	■		Very fluid	Multi-purpose resin, gloss
PB1305H	70	■		Fluid	Adhesion on textile substrate
PB1702	78.5	■		Very fluid	Mechanical properties, semi-matness
PB1704 / PB1704H	82	■		Fluid	High mechanical properties, matness
PB1705H	82	■		Fluid	Matness, improved dark yellowing
PE1311H	70	■	■	Very viscous	Highly pseudoplastic, Very low fogging
PE1511H	75	■	■	Very viscous	Very low fogging, Embossing

■ General Information :

KEM ONE's development laboratory (LAP) is dedicated to providing an efficient technical assistance to our customers. Its specialized and modern equipment makes it a highly-skilled laboratory especially in formulation, rheology and particle size measurement.



Saint-Auban development laboratory (LAP)

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