



# Lacovyl® PE1511H

PVC for Plastisol

## Technical datasheet

### Type :

Lacovyl® PE1511H is a high molecular weight homopolymer polyvinyl chloride. It is produced by KEM ONE emulsion polymerisation process and used to prepare plastisol pastes.

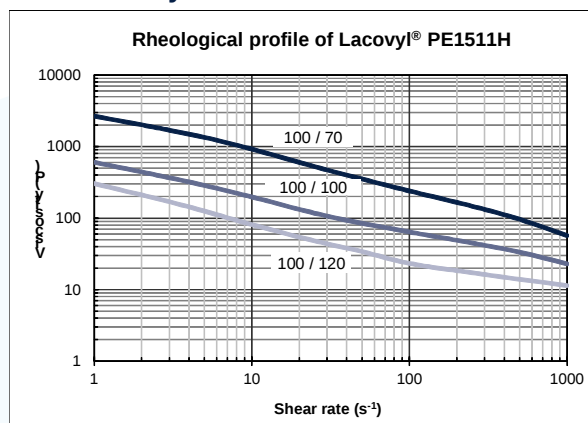
### Main uses :

| 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® PE1511H gives a **very viscous plastisol** with a **very pseudoplastic behaviour**, suitable for **highly plastised formulations**. PE1511H 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**. PE1511H is the choice resin for applications such as **fabric coatings** and especially for automotive thanks to its excellent **fogging** characteristics.

| CHARACTERISTIC                                                 | VALUE                 | METHOD       |
|----------------------------------------------------------------|-----------------------|--------------|
| K-Value                                                        | 75                    | ISO 1628-2   |
| Viscosity number                                               | 145 ml/g              | ISO 1628-2   |
| Apparent bulk density                                          | 0,4 g/cm <sup>3</sup> | 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 <sup>-1</sup> (Equivalent Brookfield 20 rpm) | 286 P or 28,6 Pa.s    | EN ISO 3219  |
| Viscosity* at 250 s <sup>-1</sup>                              | 44 P or 4,4 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® PE1511H is a very fine particle size resin that can be used for very thin coatings.

#### Plastisol

Plastisols formulated with Lacovyl® PE1511H generally show a pseudoplastic behaviour. This allows the use of PE1511H in processes and applications that require a high degree of shear, like thin coating at high speed. 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® PE1511H allows coating an openwork substrate without plastisol going through. PE1511H is therefore used in fabric coatings, especially for car interiors.

#### Cellular coating

Lacovyl® PE1511H 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](http://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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