



# Lacovyl® PA1384

PVC for Plastisol

## Technical datasheet

### Type :

Lacovyl® PA1384 is a medium molecular weight vinyl chloride and vinyl acetate (4%) copolymer. It is produced by KEM ONE micro-suspension polymerisation process and used to prepare plastisol pastes.

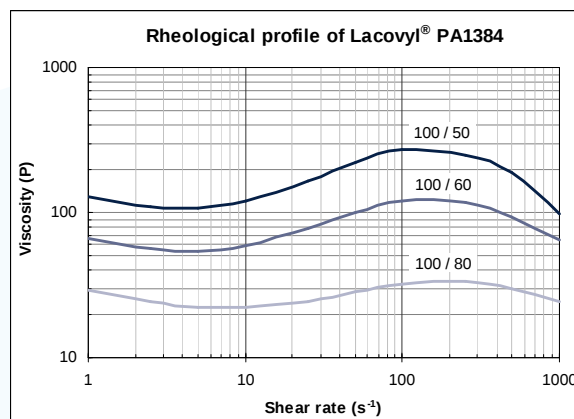
### Main uses :

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

■ ■ Recommended application

■ Possible application

### Viscosity curves:



Viscosity measurements of plastisols with 50, 60 and 80 phr DINP by rotational rheometer after 2h at 23°C ageing.

### General characteristics :

Lacovyl® PA1384 is a **low viscosity** resin which allows a gelation at low temperature (temperature of oven around 150°C). Suitable for **both compact and foam applications**, it is specially recommended for applications requiring fast gelation. Its good **fogging** characteristics make it suitable for automotive fabric coating.

| CHARACTERISTIC                                                 | VALUE                 | METHOD       |
|----------------------------------------------------------------|-----------------------|--------------|
| K-Value                                                        | 69                    | ISO 1628-2   |
| Viscosity number                                               | 120 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)                                           | 7                     | ISO 1060-2   |
| Sieve retention (63 µm)                                        | < 1 %                 | EN ISO 1624  |
| Fineness (North Gauge)                                         | 120 µm                | EN ISO 1524  |
| Fogging (100°C/16hr)                                           | < 5mg/10 g            | EN ISO 75201 |
| Viscosity* at 5 s <sup>-1</sup> (Equivalent Brookfield 20 rpm) | 54 P or 5,4 Pa.s      | EN ISO 3219  |
| Viscosity* at 100 s <sup>-1</sup>                              | 120 P or 12,0 Pa.s    | EN ISO 3219  |

\* viscosity measured with a mixture of PVC 100 / DINP 60 after 2 h of ageing at 23°C

### Properties :

#### Résin

Lacovyl® PA1384 is a very fine particle size resin that can be used for very thin coatings.

#### Plastisol

Plastisols formulated with Lacovyl® PA1384 generally show a pseudoplastic behaviour. This allows the use of PA1384 in processes and applications that require a high degree of shear (thin coating at high speed) or in highly filled formulations where a long pot-life without major risk of settlement is important.

#### Compact and cellular coating

Lacovyl® PA1384 resin is used in compact for its low viscosity and its good thermal stability, and in cellular for good foam quality. The fast gelation property of PA1384 allows to reduce oven temperatures or reduce the stay in the oven and thus to increase line speed. This property combined with superior adhesion properties (on PVC or PA), makes PA1384 the choice resin for applications requiring a fast gelling or low temperature, such as:

- Compact/cellular coating thermosensitive backing (PA, cotton...) : tablecloth, textile screenprinting;
- Adhesion layer on fabric using a very fluid plastisol,
- Automotive mastic spraying (UBS, waterproofing).



### ■ 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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