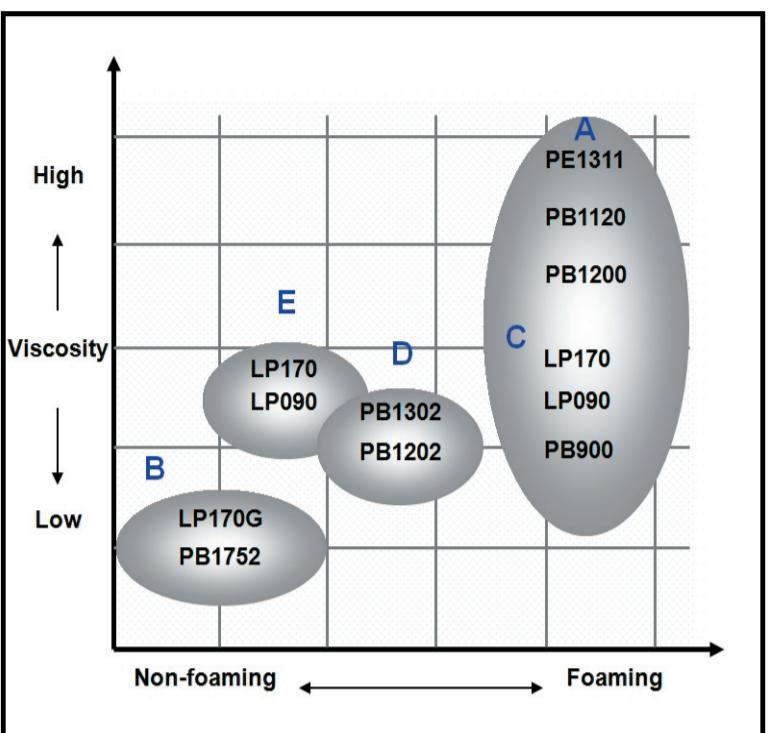


## LG Paste PVC (Emulsion PVC)

### LG Paste PVC (Emulsion PVC)



### Properties of PVC

- DP (K-value)**
  - The length of the molecular chains in the PVC
  - A higher K value provides better mechanical properties, provided the gelation conditions are adequate
- Viscosity**
  - Brookfield Viscosity in case of a given proportion of plasticizer
  - In most cases low viscosity is preferred, however according to the process it could change
- Foaming Properties**
  - For chemical foaming process, degree of foaming quality
  - Foaming ratio, color, cell structure, etc

**A** : High foam products (Mat, High foam layer, etc.)  
**B** : Non-foam products (Skin layer, Carpet tile, Toy, Glove, etc.)  
**C** : Foam products (Wallpaper, Synthetic leather, etc.)  
**D** : Foam/Non-foam products (Tarpaulin, Synthetic leather, etc.)  
**E** : Non-foam products (Automotive, etc.)

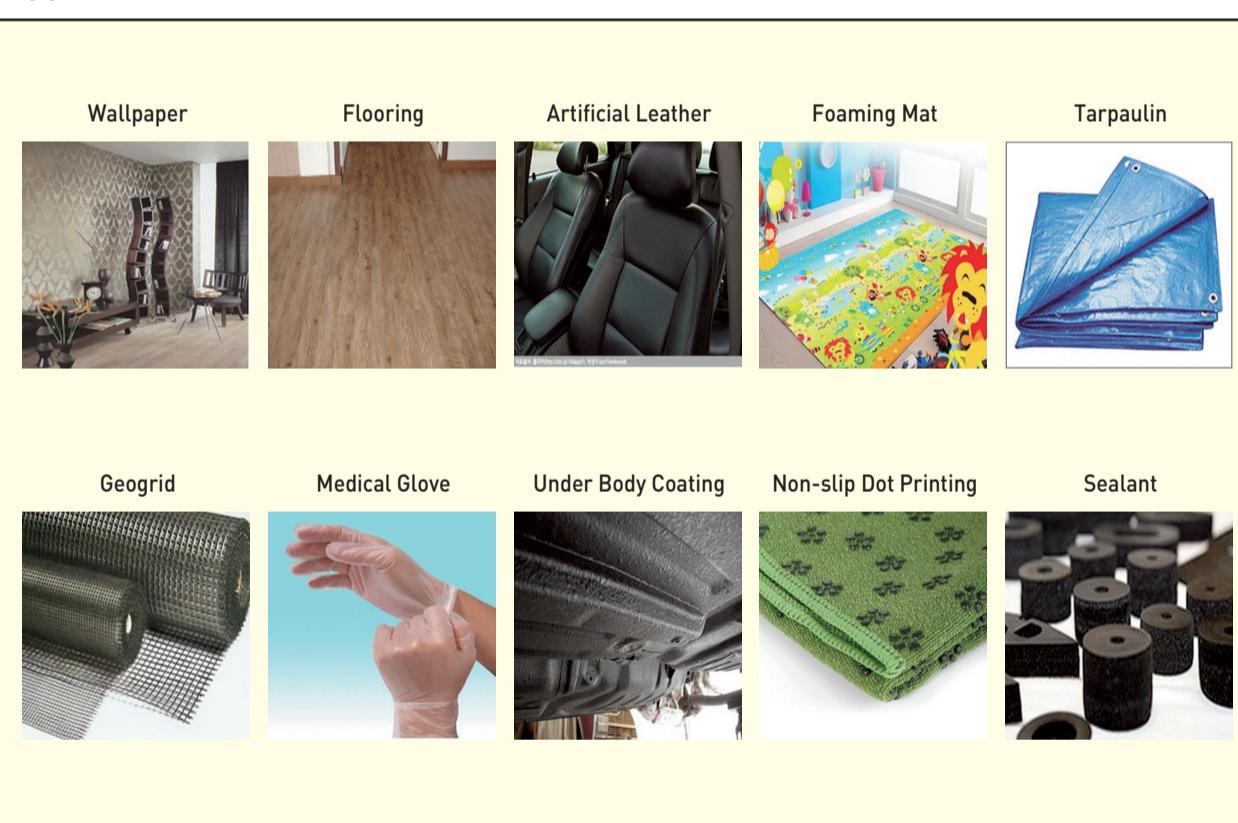
### LG Emulsion PVC Grades

| Polymerization   | Grade  | K-value | Brookfield Viscosity | Characteristic  |
|------------------|--------|---------|----------------------|---|
| Micro-Suspension | LP090  | 64      | 4,500 ± 2,000        | Low Viscosity, Excellent Foam Properties, Low Aging Plastisol |
|                  | LP170  | 74      | 5,500 ± 2,000        | Excellent Foam Properties, Good Mechanical Properties         |
|                  | LP170G | 76      | 4,000 ± 1,000        | Excellent De-aeration Properties, Low & Stable Viscosity      |
|                  | LK170  | 75      | 4,000 ± 1,500        | Acetate Co-Polymer (VAc 3.5%), Low Fusion Temperature         |
| Micro-Seeded     | PB900  | 64      | 6,000 ± 2,500        | Low Viscosity, Excellent Foam Properties, Good White Color    |
|                  | PB1120 | 66      | 30,000 ± 15,000      | Excellent Foam Properties, Chemical Embossing                 |
|                  | PB1200 | 69      | 12,500 ± 7,500       | Medium-High Viscosity, Good Pseudo-Plastic Property           |
|                  | PB1202 | 67      | 4,000 ± 2,000        | Foam Properties, Low Viscosity, High Surface Gloss            |
|                  | PB1302 | 70      | 3,500 ± 2,000        | Low Viscosity, Low Fusion Temperature                         |
|                  | PB1752 | 76      | 3,000 ± 2,000        | High Transparency, High Tensile Strength, Very Low Viscosity  |
|                  | PE1311 | 70      | 35,000 ± 25,000      | Very High Viscosity, Excellent Pseudo-Plastic Property        |
|                  | PA1302 | 70      | 12,000 ± 8,000       | Acetate Co-Polymer (VAc 3.0%), Low Flow Properties            |
| Specialty        | LB100M | -       |                      | Reducing Plastisol Viscosity, Low Gloss, Matt Effect          |
|                  | LB110  | 64      |                      | Reducing Plastisol Viscosity(Modified Rheological Behavior)   |

### Applications of LG Emulsion PVC Grades

| Applications                 | LG's Grades   | Basic Formulations (in Korea)   |
|------------------------------|---|---|
| Wallpaper (Foaming)          | PB900, PB1120, LP090  | PVC 100 + Plasticizer 80 + Filler 100 + Blowing agent 3 + TiO <sub>2</sub> 12.5 + Heat stabilizer 3 + Viscosity agent ~10 |
| Artificial Leather (Foaming) | PB1120, PB1200, PB1202, PB1302, LP090, LP170  | PVC 100 + Plasticizer 70 + Filler 50 + Blowing agent 3 + Heat stabilizer 3  |
| Flooring                     | Skin  | PB1752, LP170   |
|                              | Foaming   | PB1120, PB1200, PE1311, LP090, LP170  |
| Tarpaulin                    | PB1202, PB1302, PB1752  | PVC 100 + Plasticizer 75 + Filler 30 + Heat stabilizer 3  |
| Mat (Foaming)                | PB1120, PB1200, PE1311, LP090, LP170  | PVC 100 + Plasticizer 100 + Filler 20 + Blowing agent 7 + Heat stabilizer 3   |
| Medical Glove                | LP170G  | PVC100 + Plasticizer 80 + 2 <sup>nd</sup> Plasticizer 10 + Heat stabilizer 1.5 + Viscosity agent ~10                      |
| Under Body Coating           | PA1302, LK170(Co polymer)<br>PB1202, LP090, LP170(Homo polymer)<br>LB110(Blend Resin) | -   |

### Applications of Emulsion PVC



### Packing Type



- Suspension Resins : Paper Bag (25kg), Jumbo Bag, Sea-bulk.
- Emulsion Resins : Paper Bag (20kg), Jumbo Bag.

### Contact

|            | Product               | Name                   | E-mail address                   | Region in charge of |
|------------|-----------------------|------------------------|----------------------------------|---------------------|
| Suspension | Taekyu (Anakin) Jung  | freshgum@lgchem.com    | India                            |                     |
|            | J.Y Kim               | pclovekjy@lgchem.com   | India, Indian Subcontinents      |                     |
|            | Joon Lee              | leejoon@lgchem.com     | India                            |                     |
|            | Sanghyuck (Shaun) Nam | namsh@lgchem.com       | Middle East, Turkey              |                     |
| Emulsion   | Michael Chang         | zhangyuzhen@lgchem.com | Africa, Europe, China            |                     |
|            | Jaewoo Park           | jaewoo@lgchem.com      | America, CIS, Oceania, S.E Asia  |                     |
|            | Benjamin Cho          | windy@lgchem.com       | Russia, M/East, Turkey           |                     |
|            | Yestin Lee            | flydung@lgchem.com     | Europe, America, S.E Asia, Japan |                     |
|            | Billy Choi            | superchoi@lgchem.com   | China, India, South West Asia    |                     |

(As of April 2014)

## Product Information

[www.chemwide.com](http://www.chemwide.com)

### General Description

PB1202, homopolymer made by micro-suspension seeded polymerization, PVC Resin has a fluid property similar to Newtonian fluidity (low-viscosity) It is mainly used for non-foaming products by coating, also used for foaming products. It is wide used for products in which plasticizer is rarely added.

### Main Applications

Synthetic leather, Flooring, Wall coverings, Gloss surface layer

### Resin Properties

| Parameter                | Test Method          | Unit              | Test Condition | Typical Value |
|--------------------------|----------------------|-------------------|----------------|---------------|
| K-Value                  | DIN53726 / ISO1628-2 | -                 | -              | 67            |
| Degree of Polymerization | JIS K 6720-2         | -                 | 30             | 1,050 ± 50    |
| Apparent Bulk Density    | ASTM D1895           | g/cm <sup>3</sup> | -              | 0.36 ± 0.05   |
| Volatiles                | ASTM D3030           | %                 | 110 , 1hr      | Max. 0.3      |
| B.F Viscosity            | ASTM D1824           | cps               | DOP 60part     | 4,000±2,000   |
| S.V Viscosity            | ASTM D1823           | g/sec             | DOP 60part     | Min. 2.0      |

### Packaging

Paper bag(20kg), Jumbo bag

#### Certificate Numbers

ISO 9001:2000 00048-1997-AQ-SEO-RvA (rev.1)  
 ISO 14001:2004 0008-1996-AE-SEO-RvA  
 OHSAS 18001:1999 0015-2000-HSO-SEO-DNV (rev.1)

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