PVC PASTE
RESIN
Chemicals Business, SCG is one of the largest integrated petrochemical companies in Thailand and a key industry leader in Asia. We offer a full array of petrochemical products ranging from upstream productions of olefins to downstream productions of three main plastics resins: polyethylene (PE), polypropylene (PP) and polyvinyl chloride (PVC). Widely recognized for superior product quality as well as for world-class operation efficiency, we have joint ventures with a number of the world’s leading chemical companies, including DowDuPont™ company, Mitsui Chemicals and Mitsubishi Rayon.

We are committed to developing new high value-added products (HVA) and service solutions that inspire our customers and partners.

PASSION FOR BETTER

OUR PRODUCTION CAPACITY (AS OF 2018)

TOTAL CAPACITY : 2,878 KTA
(PE / PP / PVC)

POLYOLEFIN
Total : 1,912 (KTA)

HDPE 920 KTA
LDPE 152 KTA
LLDPE 120 KTA
PP 720 KTA

PVC
Total : 966 (KTA)

PVC Resin 850 KTA
PVC Compound 80 KTA
PVC Paste Resin 36 KTA
SCG™ PVC:

PVC PASTE RESIN

SCG’s PVC Paste Resin (Emulsion or Dispersion PVC) is a specialty PVC produced by one of our subsidiaries, TPC Paste Resin Co., Ltd., with distinctive HYBRID TECHNOLOGY. The resin is mixed with plasticizers and additives, producing plastisol and organosol in the form of a thickened paste which can be used in various industrial fields; surface coating, molding, dipping, or spraying upon materials.

ABOUT HYBRID TECHNOLOGY

HYBRID TECHNOLOGY extracts key properties from two conventional Paste PVC manufacturing processes; it combines fast polymerization and good latex stability of the emulsion process with the excellent particle size control of the micro-suspension technology process. Our PVC Paste Resin, therefore, has low viscosity, high clarity, excellent transparency, high gloss surface, and outstanding tensile strength.

We have also achieved various international standards such as RoHS Directive, REACH(1), the Best Practice Guidelines for PVC; Green Building Council of Australia (GBCA), and EU 10/2011 on Plastic Material and Articles intended to come into contact with food, US FDA 21 CFR 175.300 (Resinous and Polymeric Coatings), GB 4806.10-2016; National Food Safety Standard-Food Contact Paints and Coatings.

Remark: (1) Certified under registered volume
# SCG™ PVC:
## GENERAL PURPOSE PVC PASTE RESIN

<table>
<thead>
<tr>
<th>GRADE</th>
<th>PG620</th>
<th>PG680</th>
<th>PG740</th>
<th>PG770</th>
</tr>
</thead>
<tbody>
<tr>
<td>K Value ISO 1628-2 [-]</td>
<td>63</td>
<td>69</td>
<td>74</td>
<td>79</td>
</tr>
<tr>
<td>Degree of Polymerization Refer to JIS K6721 [-]</td>
<td>870</td>
<td>1,135</td>
<td>1,465</td>
<td>1,870</td>
</tr>
<tr>
<td>Brookfield Viscosity (1) ASTM D1824 [Poise]</td>
<td>32</td>
<td>34</td>
<td>29</td>
<td>27</td>
</tr>
<tr>
<td>Severs Viscosity (2) RY-W-QC-E030 [Poise]</td>
<td>68</td>
<td>80</td>
<td>88</td>
<td>102</td>
</tr>
<tr>
<td>Volatile Content ISO 1269 at 110°C [%]</td>
<td>0.23</td>
<td>0.22</td>
<td>0.22</td>
<td>0.22</td>
</tr>
</tbody>
</table>

### Key Characteristic

- **PG620**
  - Low fusion temperature
  - Low viscosity and good viscosity stability
  - Fast activating foams
  - Synthetic leather (foam layer, adhesive layer)
  - Excellent air release

- **PG680**
  - Foam with a fine and homogenous cell structure
  - Low viscosity and good viscosity stability
  - Excellent air release properties
  - Good heat stability

- **PG740**
  - Low viscosity and good viscosity stability
  - Excellent air release
  - High physical strength
  - Good heat stability

- **PG770**
  - Excellent physical strength
  - Low viscosity and good viscosity stability
  - Good air release properties
  - Excellent heat stability

### Recommended Application

- **PG620**
  - Synthetic leather (foam layer, adhesive layer)
  - Wallpaper
  - Flooring (backing layer for carpet tiles)
  - Logo
  - Adhesives, printing ink

- **PG680**
  - Synthetic leather (foam layer, adhesive layer)
  - Wallpaper
  - Flooring (foam layer for cushioned vinyl floor, backing layer for carpet tiles)
  - Strand & mesh coating
  - Automotive seals & mastic

- **PG740**
  - Synthetic leather (top layer)
  - Tarpaulin, conveyor belts
  - Flooring (top layer)
  - Strand & mesh coating
  - Automotive seals & mastic

- **PG770**
  - Synthetic leather (high strength top layer)
  - High strength tarpaulin
  - Strand & mesh coating
  - Flooring (high strength top layer)
  - Metal & can coating
  - Automotive seals & mastic

### Remarks:
1. Reported in unit of Poise at condition 20 rpm, 23 ± 0.5°C, 60 phr of DOP
2. Reported in unit of Poise at condition 80 psi, 25 ± 0.5°C, 60 phr of DOP

The given values are typical value measured on the product. Values herein are not to be construed as a product specification.
Remarks:
(1) Reported in unit of Poise at condition 20 rpm, 23 ± 0.5 °C, 60 phr of DOP
(2) Reported in unit of Poise at condition 80 psi, 25 ± 0.5 °C, 60 phr of DOP

The given values are typical value measured on the product. Values herein are not to be construed as a product specification.

SYNTHETIC LEATHER

CONVEYOR BELTS

FLOORING

TARPAULIN
# SCG™ PVC:
## SPECIALTY FOAM PVC PASTE RESIN

<table>
<thead>
<tr>
<th>GRADE</th>
<th>PF682</th>
<th>PF741</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K Value</strong>&lt;br/&gt;ISO 1628-2 [-]</td>
<td>69</td>
<td>74</td>
</tr>
<tr>
<td><strong>Degree of Polymerization</strong>&lt;br/&gt;Refer to JIS K6721 [-]</td>
<td>1,140</td>
<td>1,470</td>
</tr>
<tr>
<td><strong>Brookfield Viscosity</strong>(1)&lt;br/&gt;ASTM D1824 [Poise]</td>
<td>56</td>
<td>36</td>
</tr>
<tr>
<td><strong>Severs Viscosity</strong>(2)&lt;br/&gt;RY-W-QC-E030 [Poise]</td>
<td>93</td>
<td>65</td>
</tr>
<tr>
<td><strong>Volatile Content</strong>&lt;br/&gt;ISO 1269 at 110°C [%]</td>
<td>0.23</td>
<td>0.21</td>
</tr>
</tbody>
</table>

### Key Characteristic
- Very fine closed cell and homogeneous cell structure
- High whiteness foaming
- Foam achieved at high expansion levels
- Slightly Pseudoplastic rheology; slightly high viscosity at low shear and low viscosity at high shear
- Good heat stability
- Good foaming properties and fine cell structure
- Provide thicker chemically blown foam at high plasticizer content
- Exhibits no flow like dilatancy even at high shear rates
- Good viscosity stability
- High physical strength

### Recommended Application
- Synthetic leather (foam layer)
- Wallpaper
- Flooring (foam layer for cushioned vinyl flooring, yoga mat)
- Synthetic leather (top layer, foam layer)
- Automotive sealants & mastic

### Remarks:
1. Reported in unit of Poise at condition 20 rpm, 23 ± 0.5°C, 60 phr of DOP
2. Reported in unit of Poise at condition 80 psi, 25 ± 0.5°C, 60 phr of DOP

The given values are typical value measured on the product. Values herein are not to be construed as a product specification.
### SCG™ PVC:
**HIGH CLARITY PVC PASTE RESIN**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>PC750</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>K Value</strong>&lt;br&gt;ISO 1628-2&lt;br&gt;[ - ]</td>
<td>77</td>
</tr>
<tr>
<td><strong>Degree of Polymerization</strong>&lt;br&gt;Refer to JIS K6721&lt;br&gt;[ - ]</td>
<td>1,640</td>
</tr>
<tr>
<td><strong>Brookfield Viscosity</strong>&lt;sup&gt;(1)&lt;/sup&gt;&lt;br&gt;ASTM D1824&lt;br&gt;[Poise]</td>
<td>32</td>
</tr>
<tr>
<td><strong>Severs Viscosity</strong>&lt;sup&gt;(2)&lt;/sup&gt;&lt;br&gt;RY-W-QC-E030&lt;br&gt;[Poise]</td>
<td>111</td>
</tr>
<tr>
<td><strong>Volatile Content</strong>&lt;br&gt;ISO 1269 at 110°C&lt;br&gt;[ % ]</td>
<td>0.24</td>
</tr>
<tr>
<td><strong>Key Characteristic</strong>&lt;br&gt;- High glossy surface&lt;br&gt;- High clarity&lt;br&gt;- High physical strength</td>
<td></td>
</tr>
<tr>
<td><strong>Recommended Application</strong>&lt;br&gt;- Tarpaulin (high gloss surface tarpaulin)&lt;br&gt;- Synthetic leather (high gloss top layer)&lt;br&gt;- Flooring (top layer)&lt;br&gt;- Strand &amp; mesh coating&lt;br&gt;- Toys, logo, transparent terminal sleeves</td>
<td></td>
</tr>
</tbody>
</table>

**Remarks:**

<sup>(1)</sup> Reported in unit of Poise at condition 20 rpm, 23 ± 0.5°C, 60 phr of DOP
<sup>(2)</sup> Reported in unit of Poise at condition 80 psi, 25 ± 0.5°C, 60 phr of DOP

The given values are typical value measured on the product. Values herein are not to be construed as a product specification.
The applications specified for reference only.
It is customer’s responsibilities to inspect and test the product for suitability of the customer’s own use and purpose.
The customer is responsible for appropriate, sale, legal use, processing and handling of the product. To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. We however do not assume any liability whatsoever for the accuracy and completeness of the information contained herein.
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