Industrial Coatings
Technical Data Sheet

Joncryl® 1532

Product Description
Joncryl® 1532 is an acrylic emulsion for maintenance and industrial coating applications.

Key Features & Benefits
- Excellent adhesion to a variety of substrates
- Humidity resistance
- Corrosion resistance

Chemical Composition
Acrylic emulsion

Properties

Typical Properties
- **Appearance**: Opaque emulsion
- **Non-volatile at 145°C (2g, 60 minutes)**: ~ 51%
- **pH at 25°C**: ~ 8.0
- **Viscosity at 25°C**
  - (Brookfield #2LV, 30 rpm, 30 seconds): ~ 400 cps
- **Density at 20°C**: 1.03 g/cm³ (8.57 lbs/gal)
- **Tg**: 12°C (53.6°F)
- **Freeze-thaw stable**: Yes

These typical values should not be interpreted as specifications.

Applications
Joncryl® 1532 is an acrylic emulsion designed to provide adhesion to a variety of substrates, humidity resistance, water resistance, and corrosion resistance. This emulsion has utility in primer/topcoat and direct-to-metal applications. Joncryl® 1532 also provides excellent tannin and stain blocking properties in topcoat applications.

Joncryl® 1532 is recommended in applications such as:
- Interior/exterior general metal coating applications
- Interior/exterior wood coatings for flooring, furniture, or millwork applications
- Interior/exterior plastic component coating applications
- Interior/exterior concrete coating applications

Formulation Guidelines
Coalescence – Joncryl® 1532 is a room temperature film former and can be formulated without added coalescing solvents. This allows the formulation of coatings approaching zero VOC. However, performance dramatically improves as the co-solvent level is increased. A minimum of 10% on resin solids of most co-solvents is recommended, and 15 – 20% on resin solids will generally give optimum properties. A wide range of solvents including HAPS-free solvents can be used with Joncryl® 1532.

Blends of Ethylene glycol monobutyl ether and Diethylene glycol monobutyl ether have been found to provide excellent performance, while Diethylene glycol methyl ether has been found to provide good early water spot resistance. Texanol™ has been found to be useful for film formation under severe conditions, such as 40°F and 90% humidity.

1Trademark of Eastman Chemical Company.
Dispersion Characteristics - Joncryl® 1532 is shear stable and can be used as a grind vehicle if great care to temperature development and dispersion time is given. Using Joncryl® 1532 in the grind however is not normally recommended. Long dispersion times or high viscosity grind bases will generate heat, which causes the system to lose amine and gelation can occur. If dispersion in Joncryl® 1532 is desired, a slower amine such as DMEA (dimethyl ethanolamine) can be added to compensate for amine lost during the dispersion phase. Normally 2 – 5 pounds added as a 50% solution in water will stabilize the system sufficiently; however, good manufacturing practice will still be important.

Pigment Selection - Inhibitive pigment selection is also important for good corrosion resistance and long term package stability. Halox2 SW-111 has been found compatible in most formulations. Inhibitive pigments such as Halox2 SZP-391, Butrol3 22, and Busan3 11-M1 can be used with proper formulation technique. It is important to add inhibitive pigments before other pigments to avoid problems during the dispersion phase. Inhibitive pigments such as Nalzin4 2, Heucophos5 ZMP and Heucophos5 ZPA have not exhibited compatibility with Joncryl® 1532. Extender pigments have not been found to be problematic and standard formulating practices can be followed.

Defoamer Selection – The selection of defoamers is formulation dependent. BYK6-024 has been found to give good overall utility in most formulations. BYK6*-020 in the grind and BYK6*-080 in the let-down may prove useful in more difficult formulations, but this combination is more sensitive and can cause application problems.

Starting Point Formulations

The following starting point formulations are recommended for an initial evaluation of Joncryl® 1532. Additional optimization of the formulations may be desired to achieve maximum suitability for specific applications.

Joncryl® 1532 SEMI-GLOSS DIRECT-TO-METAL, Formula 250-U

<table>
<thead>
<tr>
<th>Materials</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joncryl® 1532</td>
<td>132.0</td>
<td>15.40</td>
</tr>
<tr>
<td>Water</td>
<td>44.0</td>
<td>5.28</td>
</tr>
<tr>
<td>BYK®-024</td>
<td>1.8</td>
<td>0.20</td>
</tr>
<tr>
<td>Surlyn® 104-H</td>
<td>4.4</td>
<td>0.56</td>
</tr>
<tr>
<td>BYK®-156</td>
<td>3.0</td>
<td>0.35</td>
</tr>
<tr>
<td>Add while mixing:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Halox2 SW-111</td>
<td>61.6</td>
<td>2.58</td>
</tr>
<tr>
<td>Ti-Pure® R-902</td>
<td>132.00</td>
<td>3.96</td>
</tr>
<tr>
<td>Imsil® A-10</td>
<td>71.7</td>
<td>3.25</td>
</tr>
<tr>
<td>Disperse at high speed to 5 Hegman, then add:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Joncryl® 1532</td>
<td>359.5</td>
<td>41.94</td>
</tr>
<tr>
<td>Water</td>
<td>58.9</td>
<td>7.07</td>
</tr>
<tr>
<td>Premix:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethylene glycol monobutyl ether</td>
<td>70.1</td>
<td>9.34</td>
</tr>
<tr>
<td>Dipropylene glycol monomethyl ether</td>
<td>37.8</td>
<td>4.75</td>
</tr>
<tr>
<td>Then add slowly:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BYK®-024</td>
<td>1.8</td>
<td>0.20</td>
</tr>
<tr>
<td>Premix, then add slowly:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raybo® 60</td>
<td>12.0</td>
<td>2.15</td>
</tr>
<tr>
<td>Water</td>
<td>20.0</td>
<td>2.40</td>
</tr>
<tr>
<td>Total</td>
<td>1,010.5</td>
<td>99.43</td>
</tr>
</tbody>
</table>

Formulation Attributes

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Solids</td>
<td>51.6% by wt, 40.0% by volume</td>
</tr>
<tr>
<td>Viscosity</td>
<td>400 cps</td>
</tr>
<tr>
<td>Density</td>
<td>10.25 lbs/gal</td>
</tr>
<tr>
<td>PVC</td>
<td>24.74%</td>
</tr>
<tr>
<td>VOC</td>
<td>243 g/l, 2.03 lbs/gal</td>
</tr>
</tbody>
</table>

2Registered trademark of ICL Performance Products LP.
3Registered trademark of Buckman Laboratories International, Inc.
4Registered trademark of Elementis Specialties, Inc.
5Registered trademark Heubach GmbH.
6Registered trademark of BYK Additives.
6*This product has been discontinued. Contact a BYK representative for a suitable replacement.
7Registered trademark of Air Products and Chemicals, Inc.
8Trademark of The Chemours Company TT, LLC.
9Registered trademark of UNIMIN Corporation.
10Registered trademark of Raybo Chemical Company.

Typical Properties for maintenance applications
BONDING PRIMER FORMULATION
This formulation can be applied over concrete/ceramic tiles to help improve adhesion of the topcoat to the substrate.

<table>
<thead>
<tr>
<th>Materials</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joncryl® 1532</td>
<td>49.0</td>
<td>5.7</td>
</tr>
<tr>
<td>Water</td>
<td>51.0</td>
<td>6.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>11.8</strong></td>
</tr>
</tbody>
</table>

Formulation Attributes
- Resin non-volatiles: 25.0% wt
- Density: 8.5 lbs/gal

Safety

**General**
The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of personal protective equipment.

**Safety Data Sheet**
All safety information is provided in the Safety Data Sheet for Joncryl® 1532.

Important

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, they are provided for guidance only. Because many factors may affect processing or application/use, BASF recommends that the reader make tests to determine the suitability of a product for a particular purpose prior to use. **NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESCRIPTIONS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS.** In no case shall the descriptions, information, data or designs provided be considered a part of BASF's terms and conditions of sale. Further, the descriptions, designs, data, and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained all such being given and accepted at the reader's risk.

*Joncryl is a registered trademark of BASF Group.*

© BASF Corporation, 2016
BASF Corporation is fully committed to the Responsible Care® initiative in the USA, Canada, and Mexico.
For more information on Responsible Care®, go to:
U.S.: www.basf.us/responsiblecare_usa
Canada: www.basf.us/responsiblecare_canada
Mexico: www.basf.us/responsiblecare_mexico

**U.S & Canada**
BASF Corporation
24710 W Eleven Mile Road
Southfield, MI 48033
ph: 1(800) 231-7868
fax: 1(800) 392-7429
Email: Custserv_charlotte@basf.com
Email: edtech_info@basf.com
www.basf.us/dpsolutions

**Mexico**
BASF Mexicana, S.A. de C.V.
Av. Insurgentes Sur # 975
Col. Ciudad de los Deportes
C.P. 03710
Mexico, D.F.
Phone: (52-55) 5325-2756
Fax: (52-55) 5723-3011