Photoinitiators and UV curing binders
Photoinitiators are the key compound in UV curable coating and resin formulations. Decorative and protective coatings for wood, paper, metal and other substrates can be cured.

<table>
<thead>
<tr>
<th>Product name</th>
<th>Properties</th>
<th>MP/BP in °C</th>
<th>Solubility</th>
<th>UFS Wood-Topcoating</th>
<th>Acrylic-Topcoating and Intermediate-Coatings</th>
<th>Wood Resin</th>
<th>Glass Fibre Composite</th>
<th>Gel-coatings</th>
<th>Thick Film Polymerisation</th>
<th>UV-stabilised Clear Coating</th>
<th>UV-stabilised Clear Coating</th>
<th>Low volatility and low odour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Photoinitiator 127</td>
<td>Surface curing, for clear systems, co-initiator for pigmentation systems</td>
<td>82-90</td>
<td>s ○ ○ ○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Photoinitiator 184</td>
<td>Surface curing, for clear systems, co-initiator for pigmentation systems</td>
<td>45-49</td>
<td>● ● ● ○</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator 379</td>
<td>Excellent curing, for full shades</td>
<td>82-87</td>
<td>s (sb)</td>
<td>–</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator 819</td>
<td>Ideal for opaque pigment systems and for stabilized systems, excellent curing properties</td>
<td>127-133</td>
<td>s ○ ● ○ ○</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator 819 DW</td>
<td>Ideal for opaque pigment systems and for stabilized systems, excellent curing properties</td>
<td>–</td>
<td>l ● ○ ● ● ○ ●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator 2100</td>
<td>Ideal for opaque pigment systems, easy to incorporate</td>
<td>–</td>
<td>l ●</td>
<td>–</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator 1173</td>
<td>Surface curing, for clear systems, co-initiator for pigmented systems</td>
<td>4</td>
<td>l ● ○ ○ ○ ●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator TPO</td>
<td>Ideal for opaque pigment systems and for stabilized systems, excellent curing properties</td>
<td>88-92</td>
<td>s –</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td>Photoinitiator TPO-L</td>
<td>Ideal for pigmented and UV stabilized systems</td>
<td>–</td>
<td>l ● ● ● ● ●</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>○</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

$s =$ solid, $l =$ liquid, $sb = $ solvent based, $● =$ high, $○ =$ low

Properties of photoinitiators in clear coatings:

- **Reactivity**
  - PI 379
  - PI 127
  - PI 184
  - PI 819

- **Through curing**
  - PI 819
  - PI TPO
  - PI 127

- **Surface curing**
  - PI 379
  - PI TPO-L
  - PI 127
  - PI 184

- **Yellowing**
  - PI 379
  - PI TPO-L
  - PI 127

- **Expenses**
  - PI 379
  - PI TPO-L

BODO MÖLLER CHEMIE • Ask us for further products, we will be pleased to help you! www.bm-chemie.com
UV curing resins and acrylate monomers

UV systems occupy an important position in the field of wood varnishes, printing inks and composites – 3D printing is also increasingly being used in UV systems.

UV curable coating systems are usually based on UV curable acrylic binders which are cured by initiators. With Laromer resins we offer a wide range of binders and reactive diluents. In addition to Laromer binders, we also offer acrylate monomers and intermediates for the production and modification of UV binders and other binder systems.

UV binders
▶ Laromer epoxy acrylates
▶ Laromer polyester acrylates
▶ Laromer polyether acrylates
▶ Laromer amine modified polyether acrylates
▶ Laromer urethane acrylates
▶ Laromer water thinnable acrylates
▶ Laromer dual-cure acrylic

Monomers
▶ Acrylat monomers
▶ Hydroxyacrylate monomers
▶ Methacrylate monomers
▶ SPEGMA
▶ BEPEGMA
▶ MPEGMA

Reactive diluent
▶ Laromer TMPTA
▶ Laromer BDDA
▶ Laromer HDDA
▶ Laromer TPGDA
▶ Laromer DPGDA
▶ Ethyl diglycol acrylate
▶ 4-HBA
▶ DVE-3

Intermediates
▶ Vinyl Monomers
▶ Pyrrolidone
▶ Imidazole
▶ Acetylen alcohols
▶ Special Acrylics

ISO 9001 Quality Management
ISO 14001 Environmental Management
OHSAS 18001 Occupational Health and Safety
EN 9120 Distribution and Repacking for Aviation Industry
DIN 6701 Adhesive Bonding of Railway Vehicles
and Parts for Adhesive Applications Laboratory
Responsible Care®
ESAD/SQAS