Ciba® IRGACURE® 184
Photoinitiator

General
IRGACURE 184 is a highly efficient non-yellowing photoinitiator which is used to initiate the photopolymerisation of chemically unsaturated prepolymer - e.g. acrylates - in combination with mono- or multifunctional vinyl monomers.

Chemical Structure
1-Hydroxy-cyclohexyl-phenyl-ketone
Molecular weight: 204.3
CAS No. 947-19-3

Absorption Spectrum (% in Acetonitrille)

Physical Properties
Appearance: white to off-white crystalline powder
Melting point: 45-49°C
Solubility at 20°C (g/100 g solution):
- acetone: >50
- butylacetate: >50
- methanol: >50
- toluene: >50
Ciba Specialty Chemicals
Coating Effects Segment

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hexanediol diacrylate (HDDA) > 50
oligomeric triacrylate ~ 40
trimethylolpropanetriacrylate (TMPTA) 43
tripropylene glycol diacrylate (TPGDA) 43

Application
IRGACURE 184 may be used after adequate testing for applications such as UV curable clear coatings based on acrylates for paper, metal and plastic materials.

IRGACURE 184 is especially recommended when UV coatings are required to exhibit only minimal yellowing even after prolonged exposure to sunlight.

Yellowing of urethane acrylate systems for outdoor applications, directly exposed to sunlight may be further reduced by adding Ciba Specialty Chemicals' hindered amine light stabilizer TINUVIN® 292.

Recommended concentration:

<table>
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<tr>
<th>Film thickness</th>
<th>Concentration</th>
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<tbody>
<tr>
<td>5 - 20 µm</td>
<td>2 - 4 % IRGACURE 184</td>
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<tr>
<td>20 - 200 µm</td>
<td>1 - 3 % IRGACURE 184</td>
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Safety and Handling
IRGACURE 184 should be handled in accordance with good industrial practice. Detailed information is provided in the Safety Data Sheet.

Trademark
IRGACURE is a registered trademark.

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intended; or for uses for which implantation within the human body is intended.