

PHOSPHORUS MODIFIED ACRTLATED OLIGOMER

INTRODUCTION

RAYLOK® 1722 is a difunctional acrylated phosphorus containing oligomer characterized by its flame retardant properties. Since phosphorus groups of RAYLOK® 1722 are covalently bonded to the polymer backbone, migration phenomena do not occur.

To keep sufficient high phosphorus content and consequently to have good flame retardant properties, RAYLOK® 1722 should not be diluted with more than 20% (weight) of dilution monomer. If the viscosity is still too high, heated rollers should be used.

PERFORMANCE HIGHLIGHTS

RAYLOK® 1722 is characterized by:

- superior clarity of the cured film
- excellent flame retardant properties in combination with primer UCECOAT 6558 in the radiant flooring panel test

The actual properties of UV/EB cured products also depend on the selection of the other formulation components, such as reactive diluent(s), additives and photo initiators.

SUGGESTED APPLICATIONS

Formulated UV/EB curable products containing RAYLOK® 1722 may be applied by direct or reverse roll.

RAYLOK® 1722 is recommended for use in:

- flame retardant coatings on wood and MDF

Other applications include: flame retardant coatings on plastics, paper and boards, textiles, fabrics, printed circuit board (PCB), photo imageable cover lays, electric wires/cables, electronic sleeves, optical fibres ...

TYPICAL VALUES

Höppler viscosity (60°C), mPa.s	± 7100
Colour, Gardner	2.5
Appearance	transparent liquid

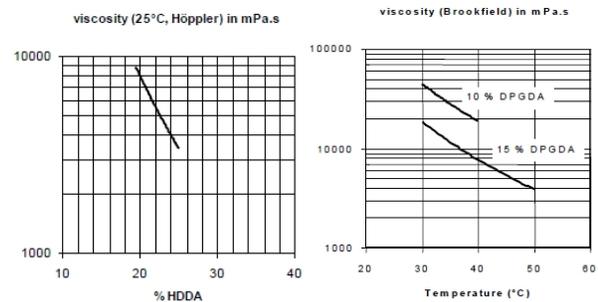
PRODUCT PROPERTIES

RAYLOK® 1722 offers the advantage of being a halogen-free oligomer with a phosphorus content of 5%, covalently bonded.

PHYSICAL DATA

Functionality (theoretical)	2
Molecular weight (theoretical), g/mol	3000
Density (25°C), g/cm ³	1.10
Polymer solids, % by weight	100

The graph shows the viscosity reduction of RAYLOK® 1722 as a function of the concentration of HDDA and as a function of the temperature with DPGDA.



STORAGE AND HANDLING

Care should be taken not to expose radiation curable products to temperatures exceeding 40°C for prolonged periods or to direct sunlight. This might cause uncontrollable polymerization of the product with generation of heat.

Storage and handling should be in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Do not store this material under an oxygen free atmosphere. Use dry air to displace material removed from the container. This material should not be stored for more than 2 years.

PRECAUTIONS

The following is a summary of the precautions to be taken when handling this product. Please refer to Safety Data Sheet for further details.

The toxicological properties of this material have not been fully determined. Products of this type can be expected to be eye and skin irritant and have the potential to cause sensitization or other allergic responses. Appropriate precautions should be taken to avoid eye and skin contact and to avoid inhalation of the aerosols or vapours.

Consult the relevant Safety Data Sheet for appropriate handling procedures and protective equipment prior to using this or any other material referred to in this bulletin.

STATUTORY LABELING

Please refer to Safety Data Sheet.