



# PROTAVIC<sup>®</sup> ANO 90161

29902-08

## DEFINITION

**PROTAVIC<sup>®</sup> ANO 90161** is a low viscosity, UV curable, non yellowing resin designed for bonding optical devices as lenses, optical fibbers, glass.

## PRODUCT DESCRIPTION

|                                     |                                      |                |
|-------------------------------------|--------------------------------------|----------------|
| Appearance                          | clear liquid                         |                |
| Odour                               | sulphur like                         |                |
| Colour                              | colourless                           |                |
| <b>Guaranteed specifications</b>    | <b>Standards</b>                     | <b>Methods</b> |
| Viscosity CP 51 at 25°C and 100 rpm | 350 ± 50 mPa.s                       | NFT 51211      |
| Gardner colour                      | < 1                                  | NFT 20030      |
| <b>Other information</b>            |                                      |                |
| density                             | 1,1 approximately                    |                |
| refractive index (liquid state)     | 1.52                                 |                |
| Dry matter                          | 100 %                                |                |
| ash residue                         | 0 %                                  |                |
| setting time under UV               | < 5 seconds                          |                |
| storage stability                   | 1 month at 20°C<br>6 months at -20°C |                |

## APPLICATION PROPERTIES

The low viscosity of **PROTAVIC<sup>®</sup> ANO 90161** improves the wetting of large glass area and is adapted for spin coating dispensing.

After curing under ultraviolet radiation, **PROTAVIC<sup>®</sup> ANO 90161** exhibits a good adhesion on glass substrates, such as optical fibber, lens and prism. Moreover, the optical bonding made with **PROTAVIC<sup>®</sup> ANO 90161** shows good resistance to moisture and high temperature (as reflow soldering).

The good optical properties of **PROTAVIC<sup>®</sup> ANO 90161** allow its use on light pathway.

## USING PROTAVIC<sup>®</sup> ANO 90161

### 1 - Application process

During handle, **PROTAVIC<sup>®</sup> ANO 90161** must be kept away from light in order to avoid the uncontrolled starting of polymerisation.

**PROTAVIC<sup>®</sup> ANO 90161** can be easily applied by spin-coating or micro-dispenser.

### 2 - UV polymerisation

**PROTAVIC<sup>®</sup> ANO 90161** cures in a few seconds under ultra-violet radiation. **PROTAVIC<sup>®</sup> ANO 90161** requires from 0.2 to 0.5 J/cm<sup>2</sup> to fully cure under UV radiation.

## **TYPICAL PROPERTIES OF POLYMERIZED SYSTEM**

These values given are typical and do not correspond to a guarantee. The user must, in all cases, by his own studies, determine the optimal polymerisation conditions for his own particular application of **PROTAVIC® ANO 90161**.

| <b>Properties</b>         | <b>Methods</b> | <b>Values</b>     |
|---------------------------|----------------|-------------------|
| Shore D hardness          | NFT 51109      | 80 approx.        |
| weight loss at 200°C      | TGA            | < 0.5 %           |
| weight loss at 300°C      | TGA            | < 1.5 %           |
| decomposition temperature | TGA            | 390 - 410 °C      |
| working temperature       |                | from -50 to 200°C |

**PROTAVIC® ANO 90161** assemblies can be submitted to high process temperature (up to 270°C) for short time (few seconds) without yellowing.

## **STORAGE CONDITIONS**

It is recommended to store **PROTAVIC® ANO 90161** in its hermetically sealed container, protected from moisture and light, at temperature below -20°C. Under these conditions, the maximum period of storage is about 6 months.

## **PRECAUTIONS OF USE**

Refer to enclosed safety data sheet.

## **PACKAGING**

**PROTAVIC® ANO 90161** is delivered 10 g and 30 g opaque syringes.