



# PROTAVIC INTERNATIONAL WORLDWIDE

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# PROTAVIC<sup>®</sup> PNS 20100

6-29904

## DEFINITION

**PROTAVIC<sup>®</sup> PNS 20100** is a low viscosity, optically clear silicon resin designed for LED potting, encapsulation and sealing. **PROTAVIC<sup>®</sup> PNS 20100** presents great heat resistance and non-yellowing.

Its specific reactivity combines both latency at room temperature and fast curing cycle.

## PRODUCT DESCRIPTION

Appearance	Clear liquid	
Odor	Characteristic	
Color	Colorless	
<b>Guaranteed specifications</b>	<b>Standards</b>	<b>Method</b>
Viscosity CP 51 at 25°C and 250 rpm	450 ± 50 mPa.s	NFT 51211
Gardner color	<1	
<b>Other information</b>		
Work life	> 5 days	
Density	1.0 approx	
Refractive index (liquid state)	1.41	
Dry matter	100%	
Possible curing cycles	- 30 minutes at 150°C	
Storage stability	- 1 year at T<-20°C	

## APPLICATION PROPERTIES

The low viscosity of **PROTAVIC<sup>®</sup> PNS 20100** improves the filling and the wetting of cavity, and prevents from bubbles entrapping. Its good latency enables it to be kept at 20±2°C for 5 days with a little increase of viscosity, so the viscosity remains virtually unchanged throughout the working day. The long pot life and the absence of solvent ensure that the product remains at a reasonably constant viscosity and facilitate application.

## METHOD OF USE

- 1) Take the package out of the freezer not more than 1 hour before use in order to prevent any re-absorption of moisture.
- 2) Work on clean surfaces or clean all surfaces in order to remove any dirt or grease. Do not deposit the adhesive on a substrate which has just been cleaned with chlorinated solvents.
- 3) Apply the adhesive (by dispensing)
- 4) Cure using one of the curing cycles compatible with the components, the substrate and the manufacturing conditions.

## FIELDS OF USE

**PROTAVIC® PNS 20100** shows excellent heat, moisture and UV resistance, and also non-yellowing at high temperature (up to 300°C) that make it especially suitable for LED potting. **PROTAVIC® PNS 20100** remains optically clear after several hours at 250-260°C.

The softness of **PROTAVIC® PNS 20100** affords good reliability against thermal cycling, and protects the chip and the bonding wires.

Properties	Methods	Results
SHORE A hardness	NFT 51109	25 A
Weight by loss TGA At 200°C At 300°C	TGA 1	0.25 % 0.50%
Thermal decomposition by TGA	TGA 1	> 400°C

## STORAGE CONDITIONS

It is recommended to store **PROTAVIC® PNS 20100** in its hermetically sealed container, protected from moisture, at temperature below -20°C. Under these conditions, the maximum period of storage is about 1 year.

## PRECAUTION IN USE

Refer to the attached material safety data sheet.

## PACKAGING

**PROTAVIC® PNS 20100** is delivered 25 g syringes and 350 g cartridges.

*The information contained in this data sheet corresponds to the present state of our knowledge ; it is intended for your guidance but we are not bound by it since we are not in a position to exercise control over the manner in which our products are used. Moreover, the attention of the user is drawn to the risks that could possibly occur should a product be used for an application other than that for which it is intended.*