



# IQ-BOND 8422 UV

**UV-curable, one component, acrylic-based adhesive for optical Applications**

## Product Description:

IQ-BOND 8422 UV is a UV-curable, solvent-free, one-component, pre-mixed, acrylic based adhesive and coating developed for optical applications.

Typical applications include bonding of glass into applications where properties such as high adhesion strength, high hardness, non-yellowing and good humidity resistance are required.

IQ-BOND 8422 UV has been developed for optical applications where a crystal clear appearance is required, combined with non-yellowing characteristics. The nature of the chemistry provides some degree of flexibility, evidenced by a medium short hardness of about 50 shore D.

For optimum performance, and to prevent “tacky” surfaces in contact with air, it’s recommended to cure the IQ-BOND 8422-UV under an inert gas blanket (for example N<sub>2</sub>).

For cleaning un-cured IQ-BOND 8422 UV, the use of IQ-CLEANER 9500 is recommended.

## Uncured Product Properties:

- Appearance: Transparent - crystal clear
- Chemistry: Acrylic
- Odor: Faint
- Density: ~ 1,06 gr/cc
- Mix-Ratio: Not Applicable – pre-mixed single component adhesive
- Viscosity: ~ 1.500 mPa.s (Brookfield RVII – CP51 – 25°C – 20 rpm)
- Cure Speed:

Spectrum	320 – 500 nm	UV and visible light
Intensity	50 – 5000 mW/cm <sup>2</sup>	
Time	1 – 60 seconds	Depending layer thickness, and intensity of the UV equipment, as well as the UV transparency of the substrate(s)
Dose = Intensity x Time	1000 – 3000 mJ/cm <sup>2</sup>	

Remark: As with most UV-acrylics, a tacky surface may form after UV-cure, depending the layer thickness. This tacky surface may be reduced by exposing longer UV-cure time and/or by curing under a N<sub>2</sub> or CO<sub>2</sub> atmosphere, to prevent oxygen-inhibition UV-adhesive.

### Cured Product Properties:

- Temperature range of use: -40°C to + 125°C
- Die shear strength: > 100 kg/cm<sup>2</sup>
- Refractive Index, cured: ~ 1,47 – 1,49
- Shore hardness: ~ 50 shore D

### Storage stability:

Storage is recommended between 5°C and 25°C. Freezing temperatures are not recommended for IQ-BOND 8422 UV.

Under normal fridge temperatures 5°C – 25°C, the storage stability is 12 months from date of production, when stored in the original, closed containers.

It's recommended not to store IQ-BOND 8422 UV together with other adhesives such as 1 and 2-part epoxies, 2-part acrylics, polyurethanes, silicones cyanoacrylates, anaerobics, etc. Also contact with amines, amides and reducing agents should be avoided.

### Attention:

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