

UV REPLICATION SYSTEMS FOR NANO & MICRO STRUCTURES

XRD/P

Two-Part UV-Curing Aliphatic Urethane Acrylate

Technical Data Sheet June 2021

Description

Basic Two-component UV-Curing Urethane Acrylate

• Part A Aliphatic Urethane Acrylate Resin

• Part B Radical Photoinitiator

Characteristics of Part A	Value	Unit
Appearance	Clear Liquid	Visual
Colour	Max. 1	Gardner
Viscosity (60°C)	1800-2200	mPa.s

Characteristics of Part B	Value	Unit
Appearance	White Crystalline Powder	Visual
Melting Point	46-50	°C

Processing

UV Curing wavelangth 395 nm Cure with Hg & LED

Bulk Materials - Part Numbers		
XRD P Part A	XRD P Part B	
Available on request	Available on request	

Care should be taken to ensure when mixing the resin air is not entrained in the mixture. If this is unavoidable the mixed resin and photoinitiator should be re-evacuated before dispensing.

Kits and Sets - Part Numbers	
XRD/P/2KGKIT	

Kits and Sets are provided in separate containers to the correct ratio.

In Kit form, pour contents of the smaller container into the larger container and use it as a mixing vessel. Stir well using an appropriate mixer until homogeneous.

Note: Incomplete mixing will be characterised by erratic or partially incomplete cure even after extended time periods.

Storage and Shelf Life

12 months at 25°C Bulk packaging.

XRD/P Part A

Care should be taken to not expose XRD/P Part A to high temperature conditions, direct sunlight, ignition sources, oxidizing agents, alkalis or acids. This may cause uncontrollable polymerization of the product with the generation of heat. XRD/P Part A should be stored in stainless steel, amber glass, amber polyethylene or baked phenolic lined containers. Procedures that remove or displace oxygen from the material should be avoided. Do not store this material under an oxygen free atmosphere. Dry air is recommended to displace material removed from the containers. Wash thoroughly after handling. Keep container tightly closed. Use with adequate ventilation. Please see MSDS for XRD/P Part A for recommended storage temperature range.

XRD/P Part B

Store the material in a dry area out of direct sunlight. Prevent exposure to any UV or visible light. Keep containers closed and protect from physical damage. On extended storage, XRD/P Part B crystalline powder may agglomerate to form solidified lumps. These can be physically broken-up into smaller pieces as needed for use. Such agglomeration does not affect product quality, though lumps of XRD/P Part B will take longer to dissolve into solution. Please see the MSDS for the recommended storage temperature range for XRD/P Part B.

Health and Safety

Please refer to XRD Part A and B Health and Safety data or our Technical Service Department for individual/specific advice.

Copyright & Warranty

The results and information above does not constitute a specification and is given in good faith and without warranty. The information is derived from test/or extrapolations believed to be reliable and is quoted for guidance only. The product is offered for evaluation on the understanding the customer satisfies himself that the product is suitable for the intended application by proper evaluation and testing.

Contact Details

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