



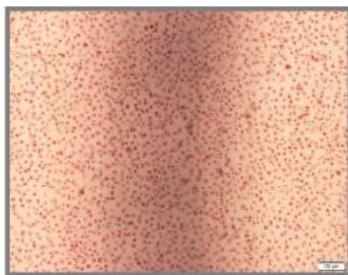
POLYCHEM UV/EB INTERNATIONAL CORP.

POLYCHEM UV Curable Conductive Hydrogel

Product Description:

POLYCHEM Advanced UV Curable Conductive #JN0917-A is a fully synthetic polyacrylamide-based and chemical cross-linked high-performance hydrogel containing purified water, humectants and fully synthetic photopolymers. The cured POLYCHEM hydrogel has very high and quick water-absorbing power. It also provides very high UV curing speed, excellent moisture retention and good electric conductivity. This gel contains no allergenic latex protein and passes ISO10993 biological cytotoxicity, skin irritation and sensitization tests with the best scores of Grade Zero (0). Also, it has good surface adhesion and is very safe for skins, leaving essentially no residue on skins for easy cleanup.

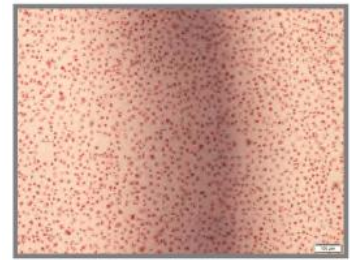
Control



Positive



Polychem Hydrogel
#JN0917-A



ISO 10993 Biological Test Results by Third Party SGS Testing Institution:

	ISO 10993-5 In Vitro Cytotoxicity Test	ISO 10993-10 Skin Irritation Test (PII Value)	ISO 10993-10 Skin Sensitization Test
Score Range:	0-4 (0 is negative, and 4 is the most severe)	0- 8.0 (0 is negative, and 8.0 is the most severe)	0-3 (0 is negative, and 3 is the most severe)
Evaluation Table:	Positive if score > 2	Positive if score > 1.9	Positive if score > 1.0
POLYCHEM Advanced UV Curable Conductive #JN0917-A	0 (The best score)	0 (The best score)	0 (The best score)
Test Conclusion:	Passed	Passed	Passed

Applications:

1. Biosensors, such as EKG electrodes, electrodes for wearable devices.
2. Biomedical transdermal drug delivery (TDDT).
3. Skin care and repair.

Product Specifications:

Appearance: transparent colorless to yellowish, low-viscosity liquid

Liquid Viscosity: 150 +/- 50 cps @ 25 C (Brookfield # 42 Spindle @ 30 rpm)

Odor: very slight

pH Value: 4.5-7.0

Swelling Ratio (in pure water or saline x 24 hrs): > 200 %

Electric Resistivity by Four-Pin Method (typical values):

Surface Resistivity: 1,600 Ω /square

Electric Conductivity: 0.40 S/cm

Volume Resistivity: 3.0 $\Omega \cdot \text{cm}$

Recommended UV Curing Conditions:

1. High-pressure mercury lamp (80-120 watts/cm) x 1 unit, curing speed of 4-6 meters per minute (250-300 mj / cm²). OR
2. High-pressure mercury lamp x 2 units, curing speed of 10 meters per minute. OR
3. UV 365 LED lamp x 1 unit, curing time: 6-8 seconds (750 mj /cm²)

Versatile Characteristics and Properties Upon Requests:

Easy molding into a variety of shapes with thicknesses up to 10 mm.

Adjustable electric conductivity.

Allows functional drugs to penetrate the skin.

Adjustable colors.

Electron beam (EB) curable, provides very high cross-linking speed and efficiency.

Storage Conditions and Shelf Life:

Keep the caps sealed and stored in a dark place at room temperature of 10-25 ° C. If this product will not be used within a week, storing it in a freezer (2-5° C) is recommended.

Shelf Life: min. 12 months.

Packaging Size:

1kg/bottle and 18 kg / Drum

Disclaimer

The information contained herein is based on the data available to use and is believed to be correct. However, Polychem makes no warranty, expressed or implied, regarding the accuracy of these data or the results to be obtained from the use thereof. Polychem assumes no responsibility for injury from the use of the product described herein.

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