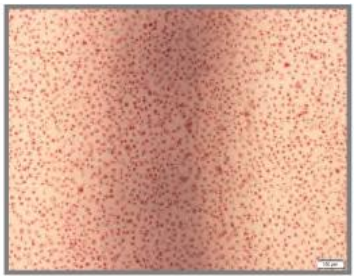
POLYCHEM UV/EB INTERNATIONAL CORP.

POLYCHEM UV Curable Conductive Hydrogel

Product Description:

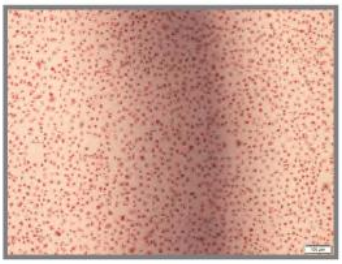
POLYCHEM Advanced UV Curable Conductive #JN0917-A is a fully synthetic polyacrylamide based and chemical cross-linked high-performance hydrogel containing purified water, humectants and fully synthetic photopolymers. The cured POLYCHEM hydrogel has very high and quick water-absorbing power. It also provides very high UV curing speed, excellent moisture retention, and #JN0917-A is one of the most conductive hydrogels available in the markets. This hydrogel contains no allergenic latex protein and passes ISO10993 biological cytotoxicity, skin irritation and skin 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 clean-up.

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 serve)	0- 8.0 (0 is negative, and 8.0 is the most serve)	0-3 (0 is negative, and 3 is the most serve)
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 water x 72 hrs): >/= 200 %
Electric Resistivity by Four-Pin Method (typical value):
Volume Resistivity: 3 ohm · cm
Conductivity: 0.40 S/cm

Recommended UV Curing Conditions:

1. High pressure mercury lamp (80-120Watt / cm) x 1 units, curing speed of 6 meters per minute (250-300 mj / cm^2). OR
2. High pressure mercury lamp x 2 units, curing speed of 12 meters per minute (250-300 mj / cm^2). OR
3. UV 365 LED lamp x 1 unit, curing time: 4-6 seconds (750 mj / cm^2)

Versatile Characteristics and Properties Upon Requests:

Easy molding into a variety of shapes with thickness up to 10 mm.
Adjustable electric conductivity.
Allows functional drugs to penetrate the skins.
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 month, it is recommended to store it in a freezer (2-5° C).

Shelf Life: min. 12 months.

Packaging Size:

1 kg/Bottle, 20 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.

POLYCHEM UV/EB INTERNATIONAL CORPORATION (Taiwan)

TEL: +886-2-2876-2561 FAX: +886-2-2874-2646 E-mail: polychem@ms4.hinet.net

Website: http://polychem.tw/