

# **BC-30UV** UV Cure Epoxy Compound

### DESCRIPTION

BC-30UV is a one part Ultraviolet Light [UV] curable epoxy balancing compound for use in weight addition balancing of electric motor armatures, pulleys, and other radically symmetrical rotating assemblies. BC-30UV has a smooth, non-fibrous, non-settling consistency which keeps the compound from migrating during the application process. The BC-30UV is placed on the motor armature, or other assembly, as indicated to balance the object. Because of the special formulation of BC-30UV, the armature may be audit balanced at modest speeds before the curing process. US Patent Nos.: 5,516,813 & 5,384,339

A UV light is then passed over the BC-30UV to initiate the cure process. In practice, a UV light with a light output of about 4 w/cm<sup>2</sup> [such as the Fusion F-300 or F-600 system] gives a cure to 1/4" depth in 20 seconds or less. This translates to an energy output of 100-120 J/cm<sup>2</sup>. After the initial UV light exposure, BC-30UV will continue to "dark-cure" even after the light source is removed if the product is kept heated. Heat applied to the compound or to the substrate during or after irradiation will greatly accelerate the cure. Moist or alkaline surfaces may poison the cure process and therefore should be avoided.

Data contained herein are believed to be reliable. Fit-for-use testing should be conducted by each user.

TYPICAL PROPERTIES	TEST METHOD	VALUE
Cure Time (seconds):		
In focal plane of Fusion Systems F-300 Lamp [4 watts/cm <sup>2</sup> ] (1/4"):		20
Using Greenspot light wand from UV Source, Inc. (1/4"):		30
Shore D Hardness:	ASTM D2240	>80
Lap Shear [CRS to CRS] (psi):	ASTM D1002	1500
Tensile Strength (psi):	ASTM D638	2000
Consistency (mm):		170-290
Specific Gravity (g/cc):	ASTM D1475	1.85
Viscosity (cps)		Putty
Color:		White/Grey

**Spin Testing:** BC-30UV was fully cured on the insulated copper windings of a motor armature. The BC-30UV is at a distance of approximately 1 inch from the axis of rotation. The armature is soaked at 300° F in an air circulating oven for 1 hour. The armature is then spun while still in the 300°F environment at 15,000 rpm for 30 seconds. The test is denoted passing if there is no separation from the BC-30UV and the windings.

To the best of our knowledge, the information contained herein is accurate. However, STAR TECHNOLOGY, Inc., does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. The information contained herein is considered typical properties and is not intended to be used as specifications for our products. This information is offered solely to assist purchaser in selecting the appropriate products for purchaser's own testing. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein and in the material safety data sheet, we cannot guarantee that these are the only hazards that exist. Repeated and prolonged exposure to epoxy resins can cause sensitization or other allergic responses.



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### PRECAUTIONS

For industrial use only. Keep away from children.

Refer to the Material Safety Data Sheets (MSDS forms) pertaining to this product before using.

Avoid contact with skin or eyes. In the event of an eye splash or contact, immediately flush with cold water for 15 minutes and contact a physician. If skin contact occurs, wash with mild soap and water. The wearing of safety glasses with side shields and impervious gloves is recommended.

#### **PRODUCT WARNING STATEMENT**

May cause allergic skin reaction. Avoid all contact with skin, eyes, and clothing. Wash thoroughly after handling.

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