

JL-106E Polymerizable Cellulosic

Applications

- UV/EB coatings
- Rheological additive
- Fiberglass composites

Features

- Improves impact resistance
- Accelerates cure
- Enhances surface hardness

Additional Features

- Mild thixotrope
- Provides chemical resistance
- Low –haze

Jaylink® 106E polymerizable cellulosic is an acrylamidomethyl–substituted cellulose ester polymer. Due to its high degree of acrylamide substitution, formulations using JL-106E cure very rapidly in response to UV/EB. Resulting films have excellent abrasion, chemical, and impact resistance. The hydrophobic and hydrophilic segments of 106E make it an excellent compatibilizer for materials of differing polarity. JL-106E is used for its thixotropic characteristics, which are particularly useful in improving UV ink holdout on porous substrates, without sacrificing cured properties. This material is INCI listed for use in the cosmetic industry

UNCURED PROPERTIES

Property	Value
Viscosity, cP (50°C)	59,000 Ψ
Appearance	White Powder
Moisture Content, %	~0.5
Specific Gravity (20°C)	1.28
Hydroxyl Content (Calculated), %	3.8
Nitrogen, %	0.45

Ψ Solution viscosity in 50% N,N'-DMA

CURED MECHANICAL PROPERTIES

Property	144B w/o JL	144B w/ JL
Tensile Strength, psi**	3,900	4,400
Elongation, %**	4.0	3.5
Elastic Modulus, ksi**	150	200
Durometer Hardness	75D	86D
MEK Double Rubs (#)	163	>200

Tg(DMA)=118°C; Peak tan delta; cured with 2 phr of Omnirad® 184

** Per ASTM D882 - Not Tested | Incompatible X Unable to Measure

ADHESION PROPERTIES

Substrate	144B w/o JL	144B w/ JL
Aluminum		✓
Cold Rolled Steel		
Glass		✓
HDPE		
PET		
PMMA		
Polycarbonate	✓	✓
Stainless Steel		✓

✓ Recommended ✓✓ Highly Recommended ✓✓✓ Strongly Recommended

TYPICAL FORMULATIONS

Test Formulation Name	144B w/o JL	144B w/ JL
JL-106E		8
BR-144B	50	50
HDDA	50	42
Omnirad™ 184	2	2
Viscosity, 25°C *	390	55,000

* Brookfield - CAP 2000+ @ 25°C.

FORMULATION NOTES

JL-106E is typically used at 2–10% by weight in most applications. When used in a formulation, it is most easily incorporated by making a concentrate out of the monomer in the formulation with the strongest solvency. Stir the monomer with a shear (Cowles–type) mix blade, and heat (up to 60°C). Sift the JL-106E into the vortex of the mixing monomer, so as to prevent agglomeration. Mix until the powder dissolves fully. Typically, a 25 to 50% solution is feasible, depending on the monomer solvency. This concentrate is then added to the formulation (in the case of inks, on the letdown side, before blending with the grind). Once dissolved, JL-106E is very compatible with most oligomers, monomers, photoinitiators, and additives.

JL-106E is soluble in most acetate and ketone solvents, along with acrylate monomers, such as IBOA, NNDMA, NVP, EOE0EA, TMPTA, GPTA, PONPGDA, HDDA, and TPGDA.

GENERAL INFORMATION

This product is intended for industrial use only. Keep out of the reach of children. Avoid breathing vapors. Avoid contact with skin, eyes, and clothing. Wear impervious gloves. Repeated or continuous skin contact with uncured material may cause irritation. Remove material from skin with soap and water. Never use organic solvents to remove material from skin and eyes. For more information on the safe handling of this material, please refer to the Safety Data Sheet before use. The data provided in this document are based on historical testing that Bomar performed under laboratory conditions as they existed at that time and are for informational purposes only. The data are neither specifications nor guarantees of future performance in a particular application. Bomar does not guarantee that this product's properties are suitable for the user's intended purpose. Numerous factors—including, without limitation, transport, storage, processing, the material with which the product is used, and the ultimate function or purpose for which the product was obtained—may affect the product's performance and/or may cause the product's actual behavior to deviate from its behavior in the laboratory. None of these factors are within Bomar's control. Conclusions about the behavior of the product under the user's particular conditions, and the product's suitability for a specific purpose, cannot be drawn from the information contained in this document. It is the user's responsibility to determine (i) whether a product is suitable for the user's particular purpose or application and (ii) whether it is compatible with the user's intended manufacturing process, equipment, and methods. Under no circumstances will Bomar be liable for determining such suitability or compatibility. Before the user sells any item that incorporates Bomar's product, the user shall adequately and repetitively test the item in accordance with the user's procedures and protocols. Unless specifically agreed to in writing, Bomar will have no involvement in, and shall under no circumstances be liable for, such testing. Bomar makes no warranties, whether express or implied, concerning the merchantability of this product or its fitness for a particular purpose. Nothing in this document should be interpreted as a warranty of any kind. Under no circumstances will Bomar be liable for any injury, loss, expense or incidental or consequential damage of any kind allegedly arising in connection with the user's handling, processing, or use of the product. It is the user's responsibility to adopt appropriate precautions and safeguards to protect persons and property from any risk arising from such handling, processing, or use. The specific conditions of sale for this product are set forth in [Bomar Conditions of Sale](#). Nothing contained herein shall act as a representation that the product use or application is free from patents owned by Bomar or any others. Nothing contained herein shall act as a grant of license under any Bomar Patent. Except as otherwise noted, all trademarks used herein are trademarks of Bomar Specialties, LLC. The "®" symbol denotes a trademark that is registered in the U.S. Patent and Trademark Office. The contents of this document are subject to change. Unless specifically agreed to in writing, Bomar shall have no obligation to notify the user about any change to its content.

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