

# Jaylink<sup>®</sup>

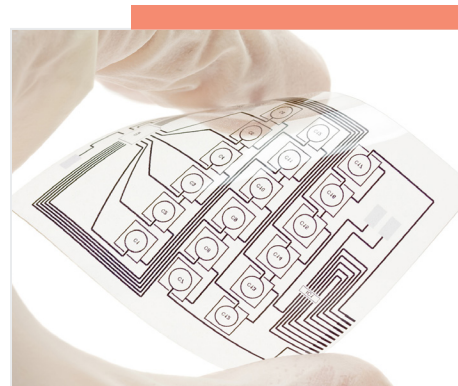
## UV-Curing Additives



### Acrylamidomethyl-Substituted Cellulose Esters

Jaylink additives are proprietary, high molecular weight, polymerizable cellulosic polymers. They are exclusively manufactured by Bomar and have the physical appearance of free flowing, white powders. These acrylamidomethyl-substituted cellulose ester polymers are typically used as additives in formulations at 2–10% by weight. They are frequently used in automotive, aerospace, food contact packaging, medical, flexographic printing, overprint varnish (OPV), UV printing ink, rapid prototyping, and graphic arts applications.

Due to the high degree of acrylamide substitution, products formulated with Jaylink usually have a higher rate of photo-cure. At addition levels of up to 30%, formulas that incorporate Jaylink materials will also see improved surface hardness without any impact on clarity. A coating will have greatly improved scratch and solvent resistance when Jaylink is used instead of cellulose acetate butyrate (CAB)<sup>1</sup>. Furthermore, the coating or ink will have less turbidity and therefore improved clarity when compared to formulas that contain ingredients like fumed silica. Jaylink additives are often used in the ink and coating industries as rheology modifiers and adhesion promoters. Jaylink has been used as a photo-polymerizable binder to form a homogeneous single-layer coating for printing plates.<sup>2</sup>



Flexible Coatings & Inks for Electronics

## Jaylink Materials in Coating and Ink Applications

In a solution, Jaylink is known to be a reactive thickener which can be utilized for its thixotropic characteristics. This rheology modifier<sup>3</sup> is used to prevent wet material from wicking into porous substrates. This is particularly useful in ink and coating applications. The hydrophobic and hydrophilic segments of this polymer allow it to be employed as a compatibilizer in systems that have incompatible ingredients with different polarity. The cured coating will have improved clarity and less turbidity when used for applications that need superior abrasion, chemical, and impact resistance. Jaylink has been known to enhance surface hardness for various coatings.

Jaylink can be easily incorporated into a formula by dispersing it in a monomer that has strong solvency. Up to 30% of this additive can be dissolved in most acetate and ketone solvents. Jaylink is also soluble in acrylate monomers such as IBOA, NNDMA, NVP, EOEQEA, TMPTA, GPTA, PONPGDA, HDDA and TPGDA.



Inks for Flexographic Printing

Jaylink Additive	Degree of Acrylate Substitution	Formulated Properties in 50% N,N-DIMETHYLACRYLAMIDE with 2% Omnirad 481			
		Uncured Viscosity at 50°C	Cured Mechanical Properties		
			Tensile Strength	Elongation	Durometer Hardness
JL-106E	0.13	59000	4020 psi	9%	84D

*JL-106E is available for sampling now.  
Custom oligomers and coatings are created upon request.*

Cook, P. M. "Radiation-polymerizable cellulose esters". Patent 4,839,230, 13 June 1989.

Grosclaude, G.V., Perron, P.A., Sypek, M. T." Photopolymeric printing plates". Patent EP 0575802 A1. 29 December 1993.

Deeken, J.S., Johnson, R. E., Moussa, K. M., Wu, L. "Radiation curable ink compositions and flat panel color filters made using same". Patent 6,114,404. 9 September 2000.

**Global Headquarters:** 51 Greenwood Road | Torrington, CT 06790 | USA | +1 860-626-7006

[www.bomar-chem.com](http://www.bomar-chem.com)

© 2013-2022 Bomar. All rights reserved. All trademarks in this guide, except where noted, are the property of, or used under license by Bomar.

Technical data provided is of a general nature and is based on laboratory test conditions. Bomar does not warrant the data contained in this document. Any warranty applicable to the product is strictly limited to that contained in Bomar's standard Conditions of Sale. Bomar does not assume responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this document shall act as a representation that the product use or application will not infringe a patent owned by someone other than Bomar or act as a grant of license under any Bomar Patent. Bomar recommends that each user adequately test its proposed use and application before actual repetitive use. BSS012 12/7/2021