BASF
The Chemical Company

Joncryl® DFC 3050-E

Key features and benefits

- compliant for food contact applications/ packaging*
- good printability
- good resolubility
- good block resistance
- good gloss and clarity
- ultra low VOC

a hard non-film-forming styrene-acrylic emulsion for use in food contact water-based inks and overprint varnishes*

General information

Typical physical characteristics (not to be considered specifications)

appearance	semi-translucent emulsion
non-volatile	45 %
molecular weight (wt. av.)	>200,000
viscosity at 25 °C (77 °F) (Brookfield)	300 mPa.s
pH	8.2
acid value (on solids)	65
density at 25 °C (77 °F)	1.04 g/cm^3
minimum film-forming temperature	>85 °C (>185 °F)
glass transition temperature Tg (DSC)	99 °C (210 °F)
VOC weight (by GC analysis)	<0.1 %
freeze/thaw-stable	yes

* This product may be used in paper and film coatings applications requiring contact with all food types and under all use conditions except extended shelf storage after cooking in the package.

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Applications

Joncryl® DFC 3050-E is a non-film-forming acrylic emulsion designed for the formulation of overprint varnishes and inks for food contact packaging applications.

Typical formulations using Joncryl® DFC 3050-E

overprint varnishes

general purpose OPV formula

5.0	parts	PE wax emulsion*
5.0	parts	wetting agent
20.0	parts	Joncryl® DFC 3050-E
0.2	parts	defoamer
49.8	parts	Joncryl® DFC 3040-E
20.0	parts	Joncryl® DFC 3025
100.0	parts	

high gloss OPV formula

8.0	parts	PE wax emulsion*
4.8	parts	water
12.0	parts	Joncryl® DFC 3050-E
0.2	parts	defoamer
36.0	parts	Joncryl® DFC 3040-E
39.0	parts	Joncryl® DFC 3015
100.0	parts	

* BASF also offers a full range of wax emulsions and dispersion resins.

For further detailed application information please contact our Technical Support Department.

FDA status

Joncryl® DFC 3050-E complies with the following food additive regulations published in Title 21 of the US Code of Federal Regulations (21C.F.R.), subject to any limitations stated in the regulations relating to the use of products in contact with food:

175.105	Adhesives
175.300	Resinous and polymeric coatings For use only in contact with food types IV - A, V, VII (Table 1) under use conditions E through G (Table 2); section 175.300 paragraph (d). It may be used with food type VIII without use restrictions. The coating, in contact with food in its finished form, meets the extractive limitations as prescribed in paragraph (c) of this section.
175.320	Resinous and polymeric coatings for polyolefin films The finished co-polymers may contact all food types under Conditions of Use B through H as described in Table 2 of 21 CFR 176.170(c), and including contact with food during cooking (initial temperature covered by Conditions of Use A, but without extended shelf storage).
176.170	Components of paper and paperboard in contact with aqueous and fatty foods The finished co-polymers may contact all food types under Conditions of Use B through H as described in Table 2 of 21 CFR 176.170(c), and including contact with food during cooking (initial temperature covered by Conditions of Use A, but without extended shelf storage).
176.180	Components of paper and paperboard in contact with dry foods

European status

Joncryl® DFC 3050-E can be used in inks and varnishes that need to be compliant to European Food Contact Regulations such as Framework Regulation 1935/2004, Plastics Directive 2002/72/EC and it´s amendments, the Resolution AP (2004)1, the Resolution AP (2002)1, the Resolution AP (2005)2, the German BfR, the Dutch Warenwet and the French Brocchure No. 1227.
For exact details please contact our European Product Regulatory Department at regulatory.affairs@basf.com.

In addition to the polymer systems listed in the referenced sections of the regulations, our products typically contain other ingredients, such as preservatives. These other ingredients are either specifically listed in the referenced sections or are authorized by the general terms of the regulation or are present in negligible amounts. It is the responsibility of our customers to determine that their use of BASF Products is safe, lawful, and technically suitable for their applications. Laws and regulations do change over time. Customers using this product should regularly review the current laws and regulations.

The preceding additive information is to be used as a guideline. There are many Direct Food contact compliant materials available in the market place. Please contact the supplier for up-to-date information regarding new product releases and complete product line information.

Safety

When handling these products, advice and information given in the safety data sheet must be complied with. Further, protective and workplace hygiene measures adequate for handling chemicals must be observed.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.

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