

# Acronal<sup>®</sup> 4 F

## General

Acronal<sup>®</sup> 4 F is an all acrylic liquid plasticizer for industrial coating applications.

## Key features & benefits

Excellent adhesion  
Good flexibility  
Resistant to light aging  
Low volatility

## Chemical nature

Poly n-butyl acrylate

## Properties

### Appearance

viscous liquid

### Typical characteristics

*(should not be interpreted as specifications)*

Non-volatile	≥ 98.5%
Viscosity at 23°C (tested 50% in ethyl acetate)	130 – 200 cps
Shear rate D	25 s <sup>-1</sup>
Iodine color number	0 – 1
Density at 20°C	1.05 g/cm <sup>3</sup>
Flash point	150°C
Tg	- 40°C

### Solubility

Soluble in esters, glycol ethers, ketones, aromatic and chlorinated hydrocarbons, and mineral spirits.

### Compatibility

Compatible with nitrocellulose, vinyl chloride polymers, polyacrylates, natural resins, and polyurethanes.

These typical values should not be interpreted as specifications. Solubility and compatibility should be tested for each individual combination.

## Application

Acronal<sup>®</sup> 4 F is used, particularly in combination with nitrocellulose, for formulating paper and film coatings, sealing wax, coatings for light metals and plastics and cellulose lacquers. Combined with chlorinated binders such as the Laroflex<sup>®</sup> MP grades, it yields coatings that are very resistant to hydrolysis for various substrates such as metals, concrete, or fiber cement. Acronal<sup>®</sup> 4 F may also be used as a permanent plasticizer in urethane sealants. In many coating systems, it will improve the adhesion of primers.

Acronal<sup>®</sup> 4 F is recommended for applications such as:

- Interior/exterior general industrial metal coating applications
- Interior/exterior concrete coating applications
- Automotive OEM or refinish applications
- Urethane elastomers and sealants

## Formulation Guidelines

Acronal® 4 F is not suitable for use as a sole binder. It should be used in combination with other binder systems such as cellulose nitrate, PVC, or polyurethanes for which it serves as a plasticizer. Polymeric plasticizers like Acronal® 4 F can substitute for classic plasticizers, like phthalates, but usually require a higher dosage rate.

Coatings based on Acronal® 4 F adhere well even on difficult substrates and are resistant to aging. Acronal® 4 F is not volatile, so the flexibility of films practically does not change with time. Acronal® 4 F is hard to saponify and tenacious.

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

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### Safety

When handling this product, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

### 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. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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**BASF Advanced Chemical Co., Ltd.**

No. 300 Jiang Xin Sha Rd, Pudong, Shanghai, China