CRAY VALLEY

# COATING RESINS

## TECHNICAL DATA — CRAYVALLAC PA3 BA 20

### SALES SPECIFICATION

| | |
|---|---|
| Non-volatile content, % @ 150°C (302°F) (CR011) | 20 ± 1 |

### OTHER PROPERTIES

| | |
|---|---|
| Volatiles | Butyl Acetate and Alcohol |
| Density at 25°C (77°F), g/cm$^3$ (CR006) | 0.86 |
| Appearance | Off white paste |

### PRODUCT INFORMATION

**CRAYVALLAC PA3 BA 20** is a HAPs-free alternative to CRAYVALLAC PA3 X 20. This rheology modifier is composed of a pre-activated amide wax dispersed in a mixture of butyl acetate and alcohol. It is a rheology modifier in paste form for post-addition to solvent-based industrial coatings. The performance benefits of this product are:

- Pre-activated, amide wax rheology modifier
- Imparts shear thinning rheology with thixotropic viscosity recovery
- Easy to incorporate
- Suitable for post-addition
- Very good sag resistance
- Very good anti-settle properties
- Good recoatability

### RECOMMENDED AMOUNTS

| | |
|---|---|
| Anti-Settling | 0.5 - 2.0% |
| Sag Resistance | 2.0 - 5.0% |

### INCORPORATION METHODS AND PROCESSING INSTRUCTIONS

**CRAYVALLAC PA3 BA 20** is a pre-activated amide paste and exists in the form of crystalline fibres. In a coating system, these fibres form an interacting network. It is this network that gives rise to the shear thinning rheology of the final coating. This shear thinning characteristic provides a very high viscosity under the low shear rates associated with sedimentation, and a low viscosity at the much higher application shear rates. The net result is excellent control of sedimentation combined with ease of application.

Immediately following application, where low shear conditions again predominate, the coating's viscosity undergoes a time dependent recovery as the network re-establishes itself. This time dependence is known as thixotropy and enables the final coating to attain very good levelling.

In order to obtain the maximum efficiency from **CRAYVALLAC PA3 BA 20**, it is necessary to disperse this product without destroying the crystalline fibres. It is therefore preferable to incorporate **CRAYVALLAC PA3 BA 20** under low to medium shear conditions over as short a time period as possible.

When using a high-speed disperser, it is recommended that **CRAYVALLAC PA3 BA 20** be added during the final stages of production, when the coating has been partially thinned to a viscosity of 600-800 mPa.s (ICI cone and plate at 10000s$^{-1}$) and the peripheral speed reduced to approximately 4 ms$^{-1}$. Too high a speed results in destruction of the active fibres and reduced performance, whereas, too low a speed will result in extended incorporation times. In general, the time required for incorporation should be kept to a minimum in order to minimise damage due to overshear.

Due to the multitude of formulations, processing methods and application conditions used in the field, we strongly recommend that all products containing **CRAYVALLAC PA3 BA 20** be tested thoroughly to ensure suitability for their intended end use. In particular, the suitability of this product for application by hotspray, or curing in poorly ventilated areas may require additional validation.

We do not recommend **CRAYVALLAC PA3 BA 20** for forced cure and stoving applications.

### PRECAUTIONS FOR STORAGE

**CRAYVALLAC PA3 BA 20** at temperatures less than 20°C (68°F) prior to incorporation can result in tiny particles being observed in the final coating. These particles have no effect on either sag resistance or viscosity, however, in order to remove them, it is recommended that **CRAYVALLAC PA3 BA 20** be warmed to 40°C (104°F) for 24 hours prior to use.

**CRAYVALLAC PA3 BA 20** should be stored in the original containers in a dry place at temperatures between 5°C (41°F) and 30°C (86°F). Avoid exposure to direct sunlight or frost.





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Under these conditions the product may be stored for up to 24 months from production date.

**PRECAUTIONS FOR USE**

Please refer to the corresponding Safety Data Sheet.




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