

# BÜFA® -Paraffine Solution 10

Prod. No. 742-0082

## Technical Data Sheet

**Product description** BÜFA® -Paraffine Solution 10 is a ready-to-use 10% solution of paraffin in styrene and xylene.

**Applications** It is used for tack-free curing of unsaturated polyester resins in the atmosphere.

## Specifications / technical data

Property	Test method	Value	Unit
Density at 20 °C	DIN 53 217/2	Approx. 0.85	g/ml
Viscosity at 20 °C in an ISO-cup	EN ISO 2431	9-11	s
Flash point	EN ISO 13736:2013	30,5	°C

## Directions for use

### General Properties

The curing of unsaturated polyester resins is hindered whenever the resin comes in contact with atmospheric oxygen (with the exception of special surface coating resins which are only suitable for the production of polyester resin mouldings in rare cases). If curing takes place quickly at a higher temperature which, in the case of thicker parts, can happen just by the heat formed in the reaction, the influence of atmospheric oxygen hardly has an effect while thinner, slowly curing parts end up with a tacky surface.

However, optimal properties in the outermost layer of the cured resin are not achieved in either case, even if the surface seems to be tack-free after a more or less longer post-curing period. Parts such as these may soil easily, erode, yellow or form white spots through the effect of water.

Since the exclusion of air, e.g. by covering with plastic film or the use of a counter mould, is not always possible, the same goal can be achieved by applying a layer of paraffin to the polyester resin. The easiest way to do this is by adding BÜFA® -Paraffine Solution 10 to the polyester resin. The paraffin separates during curing, creating a thin film on the surface which not only very effectively protects the resin from the entrance of air but also prevents the styrene from evaporating too quickly.

## Working

Batches of resin that are to be cured in the atmosphere are dosed with a certain quantity of the 10% paraffin solution (see the table below) when the temperature of the resin is at least 20 °C, depending on the type of resin. When large quantities of fillers are added, the quantity of the paraffin solution may need to be increased, depending on the type and content of the fillers. The same applies if the content of flexible resins is high. To ensure that the paraffin separates uniformly over the whole surface during curing, various quantities of paraffin solution are added to the individual brands of polyester. In the case of glass fibre reinforced laminates without an enrichment of resin, smaller quantities of paraffin are often sufficient. The information given below applies for curing with cobalt accelerators; paraffin does not separate as well when amine accelerators are used.

Type of resin:	Quantity added:
orthophthalic acid resins	2 - 3 %
isophthalic acid resins	2 - 3 %
elastic resins	6 %
vinyl ester resins	5 %
ISO/NPG resins	5 %

If, for any reason, the separating paraffin interferes or the temperature of the resin cannot be maintained at a temperature of at least 20 °C before working (paraffin separates prematurely at lower temperatures), the paraffin solution can be sprayed onto the resin surface just before or just after gelation.

### Attention!

BÜFA® -Paraffine Solution 10 should not be used at temperatures above 28 °C or in direct sunlight since paraffin does not separate from polyester resin at higher temperatures. Tack-free curing is then no longer ensured.

## Storage/Handling

This product must be stored at a temperature of at least 22 °C in closed containers protected from sunlight. Styrene polymerises at higher temperatures; at lower temperatures the paraffin flocculates but can be returned to solution by heating. When stored at temperatures of up to 25 °C in unopened, original containers, BÜFA® -Paraffine Solution 10 has a shelf-life of at least 4 months.

Note: The Information given above is based on our current state of knowledge and experience. In view of the many factors that may influence working conditions and the application of our products, the user is not relieved from carrying out his own tests and experiments. No legally binding warranty of certain properties or suitability for a particular purpose can be derived from this information. It is the responsibility of the receiver or user of our products to observe proprietary rights as well as existing laws and regulations. The latest version of the corresponding EU Safety Data Sheet must also be observed.

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