

Alcotex 45 is a 45% hydrolysed polyvinyl alcohol supplied as a low viscosity solution in a water/isopropyl alcohol solution. It has been specifically developed as a secondary suspending agent for vinyl chloride suspension polymerisation. It may be used in conjunction with conventional primary suspending agents. In optimised recipes, improvements can be obtained in the porosity/bulk density relationship. Better porosity facilitates both monomer removal and plasticiser uptake. These criteria are further enhanced when Alcotex 45 is used with the Alcotex range of primary suspending agents.

NMR measurements have shown that Alcotex 45 has a random distribution of acetate groups.

For further information regarding this product please refer to:

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| Property                              | Typical Value                                 | Unit   | Method <sup>1</sup> |
|---------------------------------------|---|--------|---------------------|
| Appearance                            | Colourless to pale straw/clear to slight haze |        |                     |
| Total Solids                          | 34.0 - 36.0                                   | %      | ATP1                |
| Degree of Hydrolysis                  | 43.0 - 47.0                                   | mole % | ATP16               |
| Viscosity @ 23°C, Brookfield RVT 3/20 | 300 - 600                                     | mPa.s  | ATP17               |
| Isopropanol Content                   | <15   | %      | ATP59               |
| Methanol Content                      | <5  | %      | ATP59               |

<sup>1</sup> internal method based upon the specified norm

## Application Advice

For detailed information, please contact the Alcotex Technical Service Team at [alcotex@synthomer.com](mailto:alcotex@synthomer.com)

Alcotex 45 should be pumped directly into the reactor, usually after the water and primary suspending agent have been added. The level of primary suspending agent may need to be reduced to maintain the correct grain size. Alcotex 45 can be used over the whole molecular weight range, at high K values to increase plasticiser absorption and at low K values to improve VCM release.

Increased porosity obtained by using Alcotex 45 allows less severe stripping conditions to be used to achieve the required residual monomer levels. Thus it is often possible to reduce stripping time, steam consumption or stripping temperature with attendant advantages in increased output, reduced costs and improved product heat stability.

PVC porosity may be enhanced at a given conversion level or a higher degree of conversion may be obtained for the same porosity.

An additional opportunity is provided to design the polymer by modifying the porosity/bulk density relationship. A more homogeneous distribution of porosity may be obtained. PVC grains made with Alcotex 45 tend to be more spherical which gives improvement in bulk density.

## Shipping and Storage

Alcotex 45 is delivered in bulk by road tanker. As supplied, the product should remain fit for use for 24months from the date of manufacture. Beyond that date, the material may still be fit for use, but we would advise that it is good practice to test the material.

Since the product is dissolved in isopropyl alcohol, the requirements of local legislation (with respect to isopropyl alcohol) must be strictly observed. These will relate to flammability. See our Health and Safety Data sheet for more details.

## Product Safety

Before handling, please read the Safety Data Sheet of this product for advice on safety, use and disposal.