

KURARAY POVAL™

Technical data sheet

Characteristics

Polyvinyl alcohol (PVOH) having degree of hydrolysis in 33 - 53 mol%.

Recommended Uses

Hot melt adhesives, PVC suspension polymerization

Form supplied

Powder with defined grain size.

Specifications

The data are determined by our quality control for each lot prior to release.

Ultra low saponified grades (DH 33 - 53 mol%)

Grade name	Viscosity [mPa·s]	Degree of hydrolysis [mol%]	Non-volatile content [%]	Ash ¹⁾ content [%]	pH
KURARAY POVAL LM-25	3.0-4.0 ^{2,3)}	33.0-38.0	98.5 ± 1.5	≤ 1.0	No spec
LM-20	3.0-4.0 ^{2,3)}	38.0-42.0	98.5 ± 1.5	≤ 1.0	No spec
LM-10 HD	4.5-5.7 ^{2,3)}	38.0-42.0	98.5 ± 1.5	≤ 0.6	No spec
LM-22	3.0-4.0 ^{2,3)}	47.0-53.0	98.5 ± 1.5	≤ 1.0	No spec
LM 30	9.3-10.3 ^{3,4)}	45.0-51.0	98.5 ± 1.5	≤ 0.6	No spec

of a 4% aqueous solution at 20 °C DIN 53015 / JIS K 6726

- 1) calculated as Na₂O
- 2) of a 4% solution (50% methanol / 50% water) at 20 °C
- 3) of a 10% solution (50% methanol / 50% water) at 20 °C

Processing

Preparation of KURARAY POVAL solutions

KURARAY POVAL LM-grades is not fully water soluble. For complete dissolution mixture of water / alcohol is recommended. Usually addition of 30% alcohol like methanol, ethanol, iso-propanol is necessary.

LM-25, LM-22, LM-20 and LM-10HD are specially modified products which can be “self-dispersed” into water with agitation. Higher temperature is negative to the stability of dispersed particles and the temperature should be kept below 30 °C. The following procedure is suggested for batch preparation.

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1. Add to the vessel the required amount of cold water at less than 25°C.
2. Start the agitator and feed the SSA into the vortex so that it is rapidly wet out and dispersed, and mix the slurry. The feed rate is somewhat dependant on the agitation.
3. Maintain agitation until the resin is completely dispersed (from 60 - 120 minutes, depending on the grade and concentration). Heating is not necessary in this process.
4. In the storage tank the temperature should be kept below 30°C for better stability.

Storage

KURARAY POVAL LM-grades have to be stored under appropriate conditions that is in its original packs in closed, dry rooms, at room temperature and used within 1 year after the delivery.

General

Industrial Safety and Environmental Protection

Not classified as a dangerous substance or preparation according to the current criteria of chemical legislation, or of the EU Directives 67/548/EC. A safety data sheet is available on request.

Special remarks

Status as governed by foodstuffs legislation

Refer to the KURARAY POVAL webpage for regulatory information.

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Issued on March 2018