# ELVANOL® T-66
## POLYVINYL ALCOHOL

## DESCRIPTION

Elvanol® T-66 is a unique copolymer grade of polyvinyl alcohol (PVA) for use on spun yarns of cotton, polyesters or blend yarns. A lower viscosity resin than Elvanol® T-25, it was developed specifically 1) to meet the demands of the new medium to high pressure slashers, in terms of better runnability and higher-solids formulations, and 2) to increase the productivity of PVA Recovery Systems based on ultrafiltration, by an improvement in desizeability and flux rates.

| Typical Properties of Elvanol® T-66 | |
|---|---|
| Viscosity, cps[1] | 11.6-15.4 |
| Solution, pH | 5.0-7.0 |
| Volatiles, wt. % max. | 5.0 |
| Ash, wt. % max.[2] | -- |
| Residual Methanol, wt. % max.[3] | <0.99 |

[1] Viscosity in mPa.s (cP) of a 4% solids aqueous solution at 20°C (68°F)
[2] Dry basis, calculated as % $Na_2O$
[3] As manufactured

## ADVANTAGES OF ELVANOL® T-66

## ON THE SLASHER

Elvanol® T-66 is easier to run on the slasher than Elvanol® T-25 when higher solids are required in the size box. There is less skinning in the size box, fewer stuck ends, laps, and ends out-oflease. Also, there is an easier break at the lease rods. The relatively low viscosity of Elvanol® T-66 results in better penetration of the yarn bundle for high add-on applications and produces smoother warps. This lower viscosity also results in energy savings due to the lower wet pick-up of the sized yarn. Less water needs to be evaporated per pound of yarn sized.

## ON THE LOOM

Elvanol® T-66 is ideally suited for sizing warps for weaving on high speed, shuttleless looms. It permits the use of "100% PVA" formulas for maximum weaving efficiency and minimum shedding

## ON THE FINISHING RANGE

Elvanol® T-66 is even easier to desize than Elvanol® T-25. It washes out at lower temperatures and/or water flow rates and helps reduce energy costs.

## RESIN CHARACTERISTICS

Elvanol® T-66 polyvinyl alcohol (PVA) is a unique copolymer supplied as a white, granular solid. Elvanol® T-66 slurries easily in cold water without lumping and dissolves readily on heating to 85ºC (185ºF) or higher for 20-30 minutes. Solutions of Elvanol® T-66 are noncorrosive and nontoxic. They are stable in viscosity and can be stored for long periods – for example, over weekend shutdown periods.

## FDA STATUS

Elvanol® T-66 polyvinyl alcohol complies with U.S. Food and Drug Administration (FDA) Regulations under the following Section of Title 21 CFR, and may be used in contact with food, subject to the limitations and requirements therein:

- 175.105 - Adhesives

## SAFETY & HANDLING

Read and understand the Safety Data Sheet (SDS) before using this product. Elvanol® is regarded as a safe, nontoxic material when properly handled. Elvanol® T-66 is technical quality polyvinyl alcohol. It is not recommended for inclusion in any food or preparation that might be taken internally.

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## SAFETY & HANDLING (CONT.)

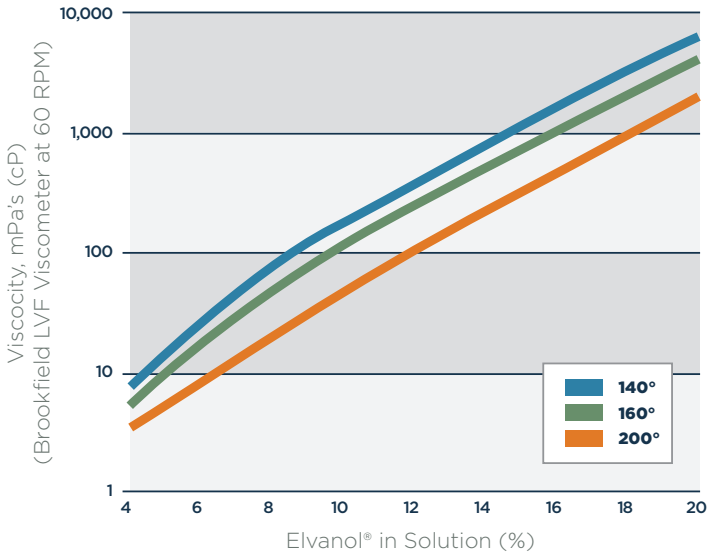
Under certain conditions of use, dust may be formed from Elvanol® polyvinyl alcohol. Kuraray recommends that dust from Elvanol® be treated as a nuisance dust, which is regulated by the Occupational Safety and Health Administration (OSHA) under Title 29, Code of Federal Regulations, Section 1910.1000. Under this section, an employee's exposure to nuisance dust shall be limited to 15 milligrams per cubic meter (mg/m³) of total dust and 5 mg/m³ of respirable dust on a time-weighted average in any 8-hour shift of a 40-hour week.

The Kuraray limit for polyvinyl alcohol exposure to nuisance dust is 10 mg/m³, and for respirable dust is 5 mg/m³. If excessive concentrations of dust are encountered, a mask or respirator and goggles should be worn. The mask or respirator should comply with Section 1910.134 of the OSHA regulations; the goggles should comply with Section 1910.133.

For bulk storage and handling of Elvanol® (e.g. storage silos) refer to Elvanol® Bulk Storage and Handling Safety Guide.

Elvanol® may be disposed of by incineration or landfill. However, any disposal method must be in compliance with all applicable local, state and federal regulations.

**EFFECT OF CONCENTRATION AND TEMPERATURE ON VISCOSITY OF ELVANOL® T-66**

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