

Functionalized Polyurethane Resin

Application

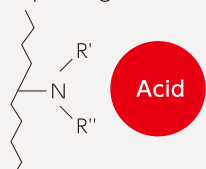
- Binder for magnetic tape and polishing tape
- Binder for recording media
- Marking film
- Resin for crosslinking
- Resin for UV / electron beam curing, and thermosetting

Characteristics

- A polymer provided with a specialized function by introducing a polar group into a molecular structure.
- Capable of performing formulation design of polyurethane resins to meet the needs with our synthesis technology, including improving the dispersibility of fillers such as a polishing material and pigments.
- Capable of improving abrasion-resistance and adhesion, and also crosslinking density by using a functional group.
- Capable of producing coatings in a short time, and of selecting functional groups according to the surface nature of dispersion.
- Capable of being blended with any binder, such as vinyl chloride-vinyl acetate and nitrocellulose.

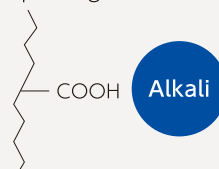
■ Application example : Dispersing agent

For dispersing acidic materials



Introduced amino group

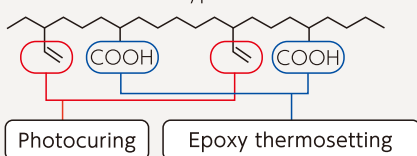
For dispersing alkaline materials



Introduced carboxyl group

■ Application example : Crosslinkage

Multi-functional type (Photo resist)



Photocuring Epoxy thermosetting

Main chain : Urethane

Thermosetting type



Epoxy resin

Main chain : Urethane

Representative Products

Product name	Solid content (%)	Solvent	Molecular weight (Mn)	Functional group	100% Mod. (MPa)	Breaking strength (MPa)	Breaking elongation (%)	Thermal softening point(°C)	Note
MAU-5000	30	TOL/IPA	40,000	Carboxyl	5.5	60	400	130	Non-yellowing
MAU-5022	35	MEK/TOL	15,000	Carboxyl	1.3	17	690	65	Yellowing
MAU-8288	35	CYCL	20,000	(urethane)	12	58	370	90	Non-yellowing
MAU-9022	30	MEK/CYCL	40,000	(urethane)	2.7	60	400	95	Yellowing

TOL= toluene, CYCL=Cyclohexanone

* The values shown above are typical values, not standard values.