

COMPOSITION
INCI NAME
POLYURETHANE-1
ACRYLATES COPOLYMER

Chemical and physical properties

- Polymeric hydro-alcoholic solution
- Appearance: milky white liquid
- Odor: characteristic
- Solid content = 40±2%
- Ethanol = 10%
- Preservative-free
- Tg ~ 6°C (Acrylic part)
- pH ~ 7,0-8,0
- Viscosity ~ 500-600 mPa.s @ 25°C

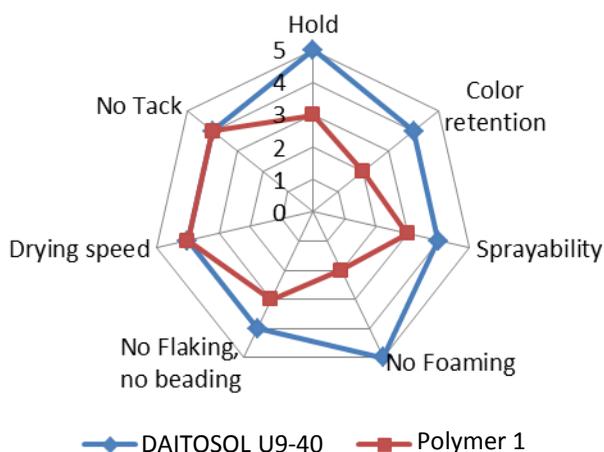
Use guideline

- Add at the end of the process at a temperature below 40°C
- High shear rate is not necessary to incorporate DAITOSOL U9-40
- Easy to use
- Neutralization not required
- Suitable for hair color styling products
- Recommended for aqueous pump spray formulations
- Suitable for low VOC hair products
- Use level: 0.1-25%

Formulation

- **pH:** between 6 and 9
- **Salts:** compatible with NaCl
- **Alcohols:** compatible
- **Surfactants:** compatible with anionic and nonionic, limited compatibility with cationic (up to 0,5%)
- **Propellants:** incompatible with DME
- **Pigments:** compatible
- **Thickeners:** compatible with carbomers, xanthan gums and cellulose derivatives
- **Beads:** compatible with MAKIBEADS, CELLULOBEADS

Performance properties

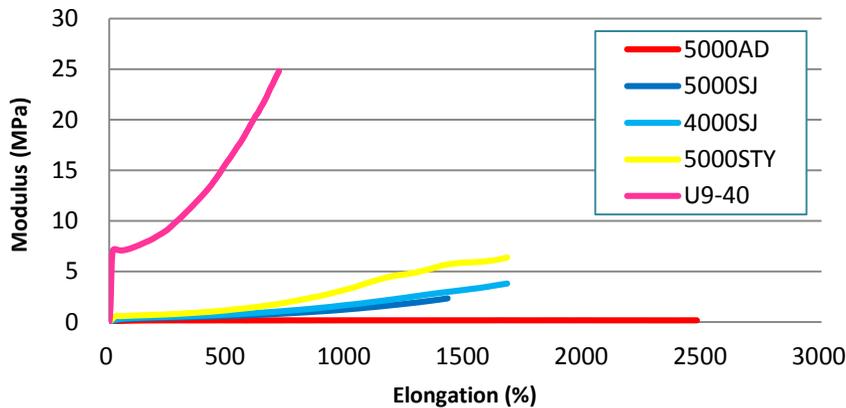


Comparison of DAITOSOL U9-40 with a conventional acrylate polymer

Cosmetic benefits

- Forms a transparent, flexible and glossy film
- Provide a high wear comfort
- Improves color adherence upon application
- Easy to wash off (no build-up on hair)
- No beading, no flaking on the hair

Mechanical Property



Method:

Prepare film by drying at 23°C/50%RH for 24 hours, and then at 40°C for 2 days

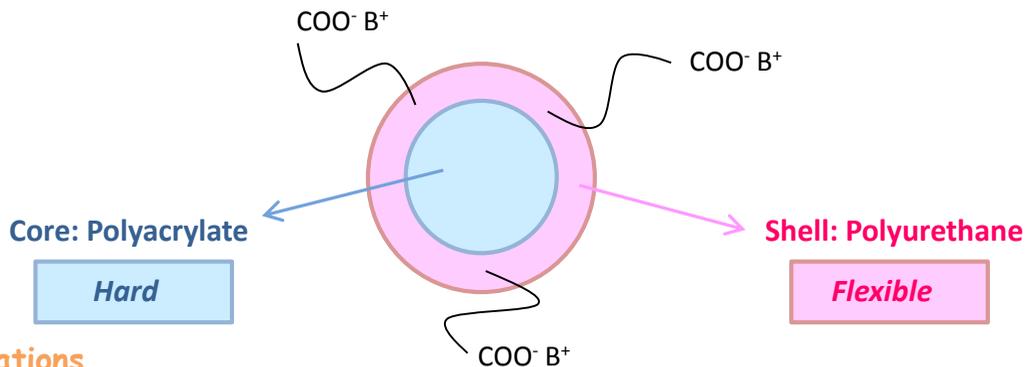
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Film shape: Dumbbell No.2

Film thickness: 200µm

Elongation speed : 200mm/min

Polymer Structure



Applications

MASCARAS

DKE 295 Flexible mascara gloss

HAIR FIXATIVE PRODUCTS

DKE 238-2 Pearly fixating spray for hair
DKE 301 ROOT TOUCH-UP
DO/076 Hair Styling Spray

Safety and regulatory information

Product safety: DAITOSOL U9-40 produces non irritation to the eyes and the skin. This product is non mutagenic and non phototoxic. Skin sensitization tests showed that this product is non sensitizing to the skin.

Material Safety Data Sheets are available for all DAITO KASEI's products.

REACH: All the ingredients, unless exempted, will be registered on May 2018.

For additional information

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