TECHNICAL CONTROL

# WATERBORNE PUD

## FOR PRINTING INKS

# Eco-friendly Solutions for Printing Industry

Technical Control provides advanced solutions for the printing industry, aiming to fulfil the customers' needs for the performance and aesthetic of products. In the context of sustainable development, waterborne PUD has widely used in paper and film printing, suitable for gravure printing inks or flexographic printing inks for OPP, PET and PVC films etc.

Our products are featured with outstanding physical properties such as good adhesion, excellent wetting and leveling, quick drying time, and excellent anti-adhesion. It can be widely used in surface printing of food packaging and other packaging materials.

Matt coating as surface treatment has become the mainstream of the market. Many printing products are treated with matt finish which gives them a more textured look. Given the different needs of water-based matt PU in various market applications, furthermore, TC adopts the most cutting-edge technology and our R&D team modified the matt PU according to the requirements of specific industries to further enhance the performance of the products. Matt PU developed by TC provides rubbery feel and soft touch and can be used for top coat matting agent on a variety of substrates.

## Waterborne Polyurethane

| Product Code | Product Type | Ionicity | Co-solvent | Solvent Content (%) | Solid Content (%) | Viscosity 25°c (Mpas) | TPU | PVC Film | OPP Film | PET Film | Overprint Varnish | Specialty Paper |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PU 104 | Aliphatic | Anionic | NEP | 4 | 40±1 | <400 | | | ● | | ● | ● |
| PU 105 | Aliphatic | Anionic | NEP | 4 | 40±1 | <600 | | | ● | | ● | ● |
| PU 150 | Aliphatic | Anionic | Acetone | <0.5 | 40±1 | <100 | ● | | | ● | ● | ● |
| PU 161 | Aliphatic | Anionic | Acetone | <0.5 | 35±1 | <60 | ● | ● | ● | ● | | |
| PU 161-2 | Aliphatic | Anionic | Acetone | <0.5 | 35±1 | <100 | ● | ● | ● | ● | | |
| PU 162 | Aliphatic | Anionic | Acetone | <0.5 | 35±1 | <100 | | | ● | ● | | |
| PU 165 | Aliphatic | Anionic | \ | \ | 35±1 | <100 | ● | ● | ● | ● | | |
| PU 166 | Aliphatic | Anionic | Acetone | <0.5 | 40±1 | <200 | ● | ● | ● | ● | | |
| PU 168 | Aliphatic | Anionic | Acetone | <0.5 | 38±1 | <200 | ● | ● | ● | ● | | |
| PU 169 | Aliphatic | Anionic | Acetone | <0.5 | 40±1 | <200 | ● | ● | ● | ● | | |
| PU 171 | Aliphatic | Anionic | NEP | 8 | 35±1 | <100 | ● | ● | ● | ● | | |
| PU 206 | Aliphatic | Anionic | NEP | 6 | 40±1 | <100 | ● | ● | ● | ● | | |
| PU 611 | Aliphatic | Anionic | NEP | 8 | 32±1 | <60 | | | | ● | ● | |
| PU 612 | Aliphatic | Anionic | NEP | 8 | 32±1 | <60 | | | | ● | ● | |
| PU 615A | Aliphatic | Anionic | DEF | 4 | 31±1 | <120 | | ● | ● | ● | ● | |
| PU 621 | Aliphatic | Anionic | NEP | 4 | 25±1 | <50 | ● | ● | ● | ● | ● | ● |
| PU 623A | Aliphatic | Anionic | Acetone | ≤1 | 35±1 | <120 | ● | ● | | ● | ● | |
| PU 638 | Aliphatic | Anionic | Acetone | ≤1 | 35±1 | <60 | ● | ● | ● | | | |
| PU 639 | Aliphatic | Anionic | NEP | 4 | 35±1 | <200 | ● | ● | ● | | | |
| PU 650 | Aliphatic | Anionic | \ | \ | 28±1 | <25 | | | ● | ● | ● | |
| PU 661 | Aliphatic | Anionic | DMM | 8 | 35±1 | <100 | ● | ● | | ● | ● | |
| PU 672 | Aliphatic | Anionic | NEP | 8 | 35±1 | <100 | ● | ● | | ● | ● | |
| PU 677 | Aliphatic | Anionic | MEK | <0.5 | 35±1 | <50 | ● | ● | ● | ● | ● | |
| PU 747 | Aliphatic | Anionic | NEP | 4 | 35±1 | <100 | | ● | ● | ● | ● | |
| PU 748 | Aliphatic | Anionic | DMM | 4 | 35±1 | <100 | | ● | ● | ● | ● | |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PU 749 | Aliphatic | Anionic | \ | \ | 35±1 | <100 | | ● | ● | ● | ● | |
| PU 751 | Aliphatic | Anionic | \ | \ | 40±1 | <100 | | ● | ● | ● | ● | |
| PU 813A | Aliphatic | Anionic | \ | \ | 32±1 | <1000 | ● | ● | | ● | ● | |
| PU 815 | Aliphatic | Anionic | \ | \ | 32±1 | <1000 | ● | ● | | ● | ● | |
| PU 822 | Aliphatic | Anionic | \ | \ | 32±1 | <1000 | ● | ● | ● | ● | | ● |
| PU 8501F | Aliphatic | Anionic | \ | \ | 32±1 | <1000 | ● | ● | ● | ● | | |
| PU 8502A | Aliphatic | Anionic | \ | \ | 32±1 | <1000 | ● | ● | ● | ● | | ● |
| UV-PUD 201 | Aliphatic | Anionic | \ | \ | 35±1 | <100 | | | | | ● | ● |

## Water-based Thickener

| Product Code | Chemical Type | Solid Content (%) | Viscosity 25°c(Mpas) | Solvent | Solvent Content (%) | Features |
|---|---|---|---|---|---|---|
| PT-20 | HEUR | 20±1 | 5000-12000 | Water | \ | A newtonian polyurethane rheology modifier, gives the formulation excellent leveling and flow. |
| PT-25 | HEUR | 25±1 | 5000-12000 | Water | \ | Medium to high shear, APEO free. It is suitable for thickening on topcoats. |
| PT-66 | HEUR | 40±1 | 1800-6000 | BCS | 23±1 | Low to medium shear, APEO free. It provides a good balance between thickening efficiency, leveling and gloss. |
| PT-67 | HEUR | 40±1 | 4000-10000 | DB | 23±1 | Low to medium shear, APEO free. It provides a good balance between thickening efficiency, leveling and gloss. |
| PT-68 | HEUR | 40±1 | 1800-6000 | BCS | 20±1 | Low to medium shear, APEO free. It provides a good balance between thickening efficiency, leveling and gloss. |

## Water-based Crosslinker

| Product Code | Ingredient | Active Content (%) | Solvent | Solvent Content (%) | Viscosity 25°c(Mpas) |
|---|---|---|---|---|---|
| Isolink D70 | Isocyanate | 70 | DMM | 30 | ≤100 |
| Isolink 100 | Isocyanate | 100 | \ | \ | ≤500 |
| Carbolinker D30 | Carbodiimide | 30 | Water | 70 | 50-300 |
| Carbolinker D40 | Carbodiimide | 40 | Water | 60 | 50-300 |
| Carbolinker D50 | Carbodiimide | 50 | DPM | 50 | 200-600 |
| Carbolinker D60 | Carbodiimide | 60 | DPM | 40 | 200-600 |
| Isolink FF | Blocked Isocyanate | 40 | Water | 60 | 300-500 |
| Isolink PCI | Blocked Isocyanate | 40 | DPM/Water | 5/55 | 300-600 |

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# Reliable Innovative Eco-Friendly

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