



CPC/LIC SPECTRATHIN® Urethane Reducers

Technical Bulletin CPCTB06

The SPECTRATHIN® series reducers are high quality urethane grade reducers, which can be used in many CPC urethane undercoats and topcoats. The *SpectraThin* series blended reducers improve the leveling and through cure characteristics of primers and topcoats, compared to using straight solvents such as Acetone or MAK.

Products:

- TFS309-30 Fast Urethane Reducer
- TFS309-60 Medium Urethane Reducer
- TFS309-80 Slow Urethane Reducer
- TFS309-90 Very Slow Urethane Reducer
- TFS321-50 Exempt Reducer

These reducers may be used in Factory Package color or color formulas made from the CPC/LIC resins listed below as well as the identified urethane primers:

Product Names	Description	Comments
AUE-100 (+AUE-100LG)	Acrylic Urethane Enamel	Up to 20% reduction with TFS series solvents in non-regulated VOC areas. VOC = 4.63 – 5.24lbs/gal
AUE-280 (+ AUE-280LG)	2.8 VOC Polyurethane Enamel	Q30 Acetone or TFS321-50 exempt reducer up to 10% for reduction.
AUE-300 AUE-300YL	Acrylic Urethane Enamel	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents. VOC = 2.87 – 3.82 lbs/gal
AUE-360/AUE-360LG AUE-360YL	2K High Solids Urethane	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents. VOC = 2.82 – 3.84lbs/gal
AUE-360 (+AUE-360LG) w/AUE-3606A	2K High Solids Urethane	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents.
AU36-FP9xx	2K High Solids Polyurethane Topcoat	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents. VOC = 2.89 – 3.26lbs/gal
AUE-370 AUE-370YL AU37-FP908	Direct to Metal Polyurethane	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents. VOC = 2.33 – 3.19lbs/gal
AUE-400LG	Low VOC Polyurethane Enamel - Low Gloss	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents. VOC = 3.21 – 3.81lbs/gal
HSP-2128 Series	Polyurethane Primer	Q30 Acetone or TFS321-50 exempt reducer 10% - 25% for reduction.
W43181A/ HSP-528	2K High Solids Urethane Primer	Can be thinned up to 10% in non-regulated VOC areas with TFS series solvents. VOC = 2.92 – 3.47lbs/gal



Physical Constants: All values are theoretical. Actual values could vary slightly due to manufacturing variability.

TFS Code	Name	% Organic HAPS ¹ (VHAP)	Density or Wt/Gal ²	Flash Point ³	Evaporation Rate ^{4-4a}	Resistivity Polarity ⁵	Flow Rating ⁶	Comments
TFS309-30	<i>SpectraThin</i> Fast Urethane Reducer	36.44%	6.49	7	12 min.	2.20	3	TFS309-30 is a fast evaporating urethane grade solvent blend designed for 2K urethane products.
TFS309-60	<i>SpectraThin</i> Medium Urethane Reducer	24.77%	6.82	24	34 min.	1.50	6	TFS309-60 is a moderate evaporating urethane grade solvent blend designed for 2K urethane products.
TFS309-80	<i>SpectraThin</i> Slow Urethane Reducer	17.21%	6.81	40	85 min.	1.20	8	TFS309-80 is a slow evaporating urethane grade solvent blend designed for 2K urethane products.
TFS309-90	<i>SpectraThin</i> Very Slow Reducer	21.11%	6.82	45	110 min.	4.00	10	TFS309-90 is a very slow evaporating urethane grade solvent blend designed for 2K urethane products.
TFS321-50	<i>SpectraThin</i> Exempt Reducer	0.00%	8.43	4	30 min	0.11	6	TFS321-50 is an exempt urethane grade solvent blend designed for 2K urethane products.

1. Percent organic HAPS (Hazardous Air Pollutant) contained in the solvent.
2. Density measured in pounds/gallon
3. Flash Point - measured on a Penske Martins Closed Cup (PMCC)
4. Evaporation rate of the solvent as related to n-Butyl Acetate (The value for n-butyl acetate = 1.0)
- 4a. Evaporation rate was determined in the PPG lab at 77 °F / 25 °C and 20% RH
5. Resistivity - measured in Megohms. A high resistance (>20 Megohms) means the solvent is non-conductive and will exhibit poor electrostatic spray. A coating that measures low resistance (<.05 Megohms) may be too conductive to spray.
6. Flow Rating - an arbitrary number given to the solvent based on its ability to help the coating flow and level to a smooth finish (scale of 1-10)



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