



Technical Data Sheet

DURAMAX™ D-3005 Dispersant

DURAMAX™ D-3005 ceramic dispersant is the ammonium salt of a polyelectrolyte useful for dispersing a variety of ceramic powders in water. Its low molecular weight not only makes it effective at low use levels, but also eliminates change of slip viscosity with time due to dispersant adsorption. DURAMAX™ D-3005 ceramic dispersant is supplied as a 35% solution in water.

Typical Physical Properties*

Appearance	Pale yellow liquid
Total Solids (%)	35
Molecular Weight	~2400 daltons
Density at 23°C	1.16 g/ml
Viscosity (Brookfield #1, 60 rpm)	<100 cP
pH	6.0 - 7.0
Residue After Firing	2.7% (air)

*These properties are typical but do not constitute specifications.

Typical Use Procedure

Alumina

DURAMAX™ D-3005 ceramic dispersant (2.39 g, 0.8 mg/m² powder), de-ionized water (129.36 g), and Alcoa A-16SG alumina (308 g, 9.7 m²/g) were combined in a 00 jar with 710 g alumina grinding media and milled for 30 minutes.

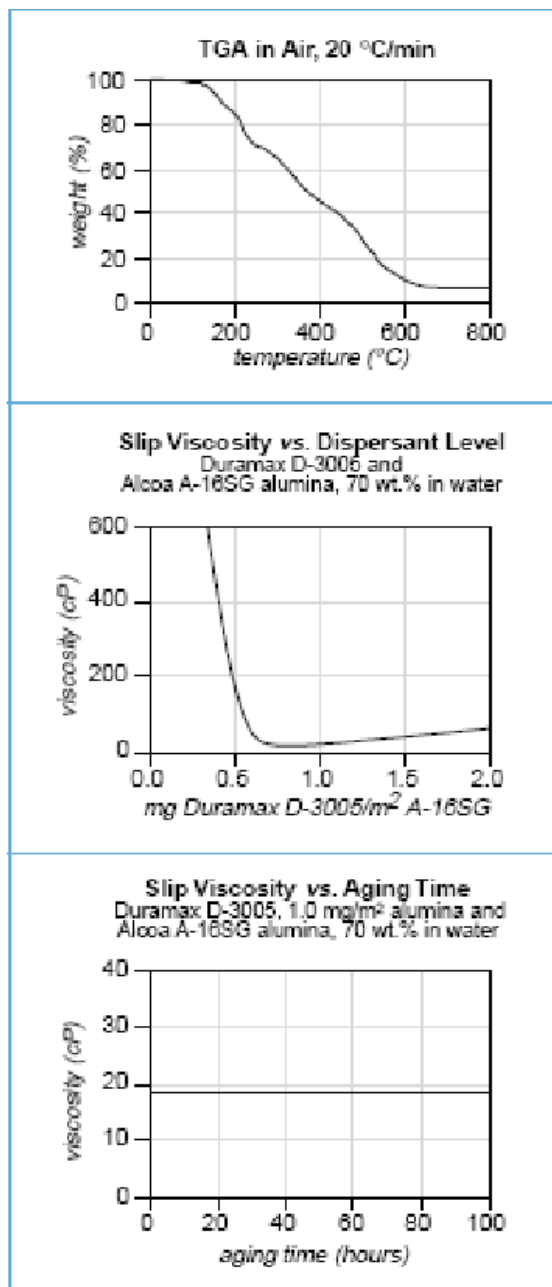
Recommended Use Levels (mg D-3005/m² surface area)

The recommended use level of a dispersant is a function of powder surface area, not powder weight. For this reason, recommended use levels are given in units of weight dispersant (as supplied) per unit surface area of powder.

Al ₂ O ₃	0.8 mg/m ²
ZrO ₂	2.2 mg/m ²
SiO ₂	0.15 mg/m ²
Mullite	1.0 mg/m ²



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DURAMAX™ D-3005 Dispersant

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