Without impairing coating properties:

- Gloss
- Drying speed
- Weathering resistance
- Chemical resistance
- Adhesion
- Flexibility
- Hardness
- Storage stability (at low temperature)

The new grinding resin is compatible with all common binders, with only minimal effect on coating properties.

**Tested binder systems**
- short-oil alkyd resin
- medium-oil alkyd resin
- long-oil alkyd resin
- self-crosslinking acrylate
- 2-pack PU acrylate
- 1-pack polyester
- 2-pack polyester
- polyether
- poly-aspartic acid ester
- epoxy resin
- nitrocellulose
- urea-formaldehyde resin

**TEGO**® VariPlus LK (93% solid)

The graph illustrates the relationship between VOC-value [g/L] and pigment loading [%] for TEGO® VariPlus LK.

TEGO® VariPlus LK

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Evonik. Power to create.
TEGO® VariPlus LK: Lower VOC Content in Pigment Concentrates

Emission limits for volatile organic compounds (VOC) are being lowered worldwide. As a result, coatings formulators are increasingly limited in their choice of raw materials and hence their formulations.

TEGO® VariPlus LK, the new grinding resin, drastically lowers the VOC content in pigment concentrates for solventborne coatings and for the overall formulation.

Until now, solventborne pigment concentrates have generally had a high VOC content, which affects the final VOC content of colored coatings. To reduce the high VOC content, Evonik has developed the grinding resin TEGO® VariPlus LK. This new resin reduces the viscosity of the concentrate, thus permitting optimized pigment loading. When used in combination with the dispersing additive TEGO® Dispers 676, the VOC content in the concentrate can be lowered by up to 75%. For the overall formulation, this means a VOC reduction of up to 100g/L when adding 20% concentrate.

For the formulator, this means more formulation freedom, increased flexibility in the choice of raw materials, and greater color diversity.

TEGO® VariPlus LK is one of the first liquid grinding resins on the market. Until now, grinding resins have been supplied as granules which must be dissolved in a solvent. With TEGO® VariPlus LK, formulators will be able to eliminate this production step.

Advantages of TEGO® VariPlus LK
- more formulation freedom
- increased flexibility in the choice of raw materials
- greater color diversity
- elimination of production step “dissolving”
- ultimate viscosity reduction with TEGO® Dispers 676