

Alkylmethyl & Alkylaryl Silicones

- In general, the introduction of alkyl or aromatic substituents – the latter not attached directly onto silicon – produces polysiloxanes that are much more compatible with organics. This is a highly desirable and critical modification that affords introduction of silicone characteristics into organic environments.
- Good thermal stability and the organo-compatibility of linear alkylmethylsiloxanes make these polymers suitable to formulate *paintable* mold release agents for metals, plastics and rubbers, where no unusual or extraordinary cleaning of the molded part is required to carry out subsequent surface finishing/bonding operations.
- Olefin-modified siloxanes have been reported to have been used as “bridging agents,” facilitating the stabilization of silicone-based compositions and mineral oils.

Example Applications/Benefits

Fluids

- Formulation of paintable industrial mold release agents for rubber, plastic and metals. No corrosion or mold build-up residue.
- Formulation of lubricants. Rubber-to-rubber.

Waxes

- Provide enhanced lubricity, water repellency and detackification in personal care formulations. Non-occlusive films.
- Provide gloss enhancement, durability and dry finish to automotive polish formulations.

Further Reading

- Lubrication – Tabor, D., and Willis, R. F., *Wear*, **11** (2), 145 (1968).
- Alkylmethyl Siloxanes – Clarson, S.J.; Semlyen, J.A. (ed.) (1993). *Siloxane Polymers*. Englewood Cliffs: PTR - Prentice Hall.

Product Information

A complete list of XIAMETER® brand fluids is available at www.xiameter.com.



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