

ELVACITE® 4059 AS ADDITIVES FOR RADIATION CURABLE INKS AND COATINGS FORMULATIONS

Elvacite® 4059 is a solid acrylic bead resin which has been specially developed for use as a performance enhancing additive in a range of radiation (UV and EB) curable inks and coatings. These enhancements stem from the use of novel polymer chemistry which enables Lucite International to confer Elvacite® 4059 with a unique, UV reactive macromolecular design. Elvacite® 4059 is designed for use in applications such as radiation curable silk screen inks, wood coatings, and plastic coatings and has good solubility in a wide range of UV monomers and oligomers.

The new technology embodied by Elvacite® 4059 is designed to complement the existing art where resins such as Elvacite® 2028, 2013, and 2927 have been used as "passive" resins in UV formulations for years. Such "passive" Elvacite® resins act as modifiers that add value to radiation curable formulations in a variety of ways, some of which are listed in the Retained Benefits section below. By using Elvacite® 4059 in radiation curable applications, the following additional benefits can be gained while the traditional benefits of using "passive" Elvacite® resins are retained.

Additional Benefits from Elvacite® 4059

- * Faster cure rate
- * Improved chemical and solvent resistance
- * Lower formulation viscosity

Retained Benefits from "Passive" Technology

- * Reduced shrinkage
- * Enhanced adhesion to substrate and improved intercoat adhesion
- * Improved pigment dispersion
- * Increased film flexibility
- * Reduced system costs through replacing expensive acrylate functionalised oligomers

Typical Properties ^a

Appearance	solid, white, free flowing spherical beads
Glass transition temperature (Tg)	40°C
Molecular Weight (Mw)	20,500
Acid number (mg KOH/g)	zero

a) Properties as indicated are for information only and are not to be taken as guarantee of product specification.

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