

# GENIOPERL® W37 and W38:

## The next generation of impact modifiers for thermosets

GENIOPERL® W37 and GENIOPERL® W38 represent WACKER's newest class of high-performance organosilicone tougheners engineered specifically for epoxy and vinyl ester systems. Their sophisticated silicone-organic architecture ensures clean dispersion, high compatibility, and efficient phase separation during curing — resulting in significantly improved impact resistance, damage tolerance, adhesion and low-temperature toughness, all while keeping viscosity and  $T_g$  virtually unchanged.

Whether used in composites, adhesives, coatings, or casting formulations, GENIOPERL® offers a reliable route to enhanced durability without compromising processing or mechanical performance.

### Why use GENIOPERL® W37 and GENIOPERL® W38?

#### High compatibility

Stable nanoscale dispersion in epoxy and vinyl ester systems — even in cycloaliphatic and anhydride-cured resins

#### High performance at low dosage

2 - 8 wt% is enough to deliver major leaps in fracture toughness

#### Superior low-temperature toughness

Superior energy dissipation even under cryogenic conditions. Ideal for cold-climate composites, cryogenic systems or high-impact environments

#### Minimal impact on viscosity and $T_g$

GENIOPERL® toughens without influencing viscosity, cure behavior or thermal properties

#### State of the art nanoscale toughening

Self-organized elastomer domains form within the resin matrix — delivering uniform, stable, nanoscale reinforcement without extra processing steps

#### Enhanced adhesion and structural integrity

Improves bonding between adhesive layers and strengthens structural joints

### GENIOPERL® W37 and GENIOPERL® W38: Two powerful options for sustainable formulations

GENIOPERL® W37 and GENIOPERL® W38

- Tin-free
- Low cyclics content
- No hazardous ingredients declared

GENIOPERL® W37

The defoamer-free version offering full formulation flexibility

GENIOPERL® W38

includes an integrated anti-foam system, ideal for vacuum-assisted processes such as infusion, casting, and prepreg manufacturing

#### Optimized for modern manufacturing

If your process uses thermosets, GENIOPERL® fits in seamlessly. GENIOPERL® pellets can be dispersed at 50 °C – 70 °C with standard equipment.

Suitable for

- Casting resins
- Structural adhesives
- Coatings
- Electronic materials (EMC)
- Composite processes:
  - SMC, BMC
  - RTM, infusion, pultrusion
  - Prepregs

#### The GENIOPERL® effect at a glance

- Higher impact resistance
- Stronger crack resistance
- Major fatigue performance improvements
- Superior cold-temperature toughness
- Improved bonding across adhesive layers
- Improved damage tolerance in structural joints
- Increased durability under thermal and mechanical stress

Because your materials shouldn't  
break before your ideas do

More information:



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