



Authorized  
Distributor

# Improve Adhesive Strength with Dow's PARALOID™ Impact Modifiers

---

## Toughening Epoxy & MMA Adhesives Without Sacrificing Processability

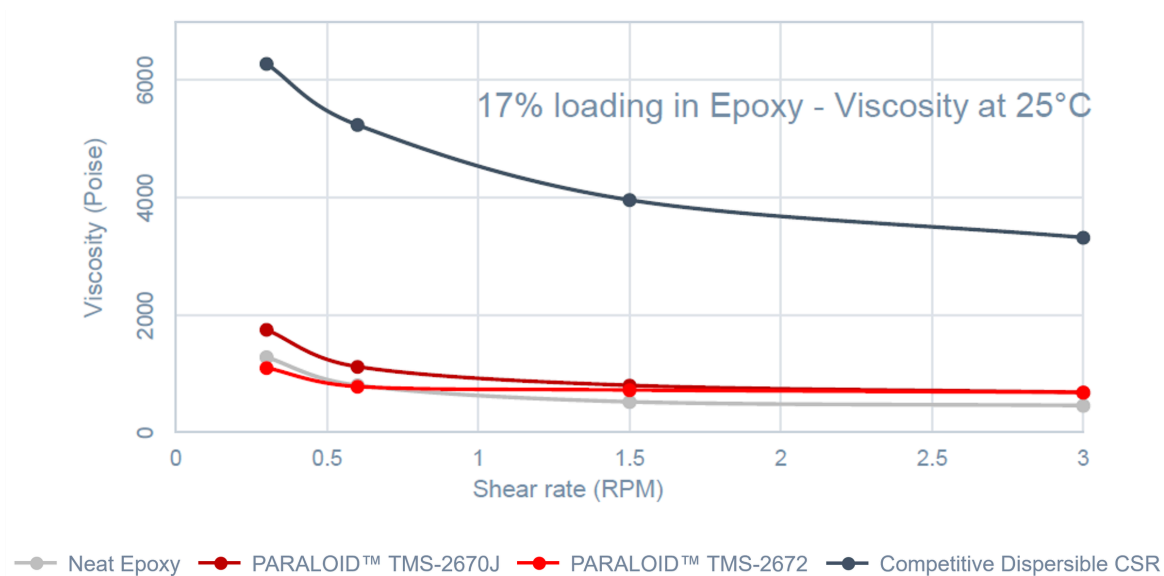
Structural adhesives must be able to withstand impact, fatigue, thermal cycling, and long-term mechanical stress without sacrificing strength. Dow's portfolio of PARALOID™ Impact Modifiers provides a solution for enhancing toughness and durability in demanding adhesive formulations.

### The Challenge

Epoxy and methacrylate (MMA) adhesives provide excellent adhesion and thermal resistance, but their inherent brittleness can limit performance in the following ways:

- Reducing impact and fracture resistance
- Allowing crack propagation under dynamic loads
- Increasing formulation viscosity when traditional tougheners are added

### High Toughening Efficiency with Minimal Viscosity Impact



#### What this shows:

At 17% loading in epoxy, PARALOID™ TMS-2670J and PARALOID™ TMS-2672 maintain viscosity levels close to neat epoxy across shear rates, while competitive dispersible CSR additives dramatically increase viscosity.

#### Why it matters:

Lower viscosity enables easier mixing, pumping, dispensing, and processing, helping formulators maintain productivity without sacrificing toughness.



## Superior Dispersion at the Microscale

Structural adhesives must be able to withstand impact, fatigue, thermal cycling, and long-term mechanical stress without sacrificing strength. Dow's portfolio of PARALOID™ Impact Modifiers provides a solution for enhancing toughness and durability in demanding adhesive formulations.

### PARALOID™ TMS-2672

- Uniform, fine-particle dispersion promotes efficient energy absorption and consistent adhesive performance
- Competitive dispersible CSR
- Agglomeration limits toughening efficiency and contributes to higher viscosity and inconsistent mechanical properties

### Performance Where It Counts

PARALOID™ Impact Modifiers are used in structural adhesive formulations across demanding applications:



#### Automotive & Transportation

Bonding lightweight composites and plastics to metal structures



#### Electronics & Appliances

Adhesives exposed to vibration, thermal cycling, and mechanical shock



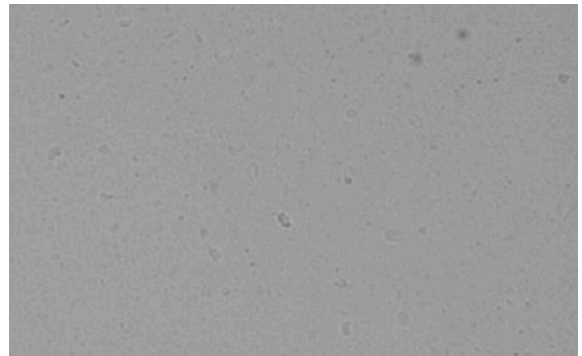
#### Building & Construction

Structural panels, flooring systems, and composite reinforcement

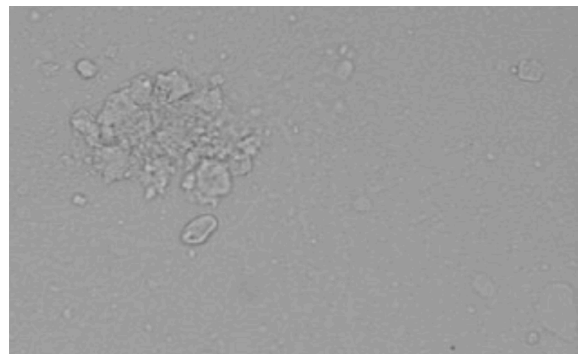


#### Industrial & Aerospace

Adhesives designed for dynamic loads and harsh environments



PARALOID™ TMS-2672 200 μm



Competitive Dispersible CSR 200 μm

## Why Choose Dow's PARALOID™ Impact Modifiers

- ✓ Toughens adhesives without oversoftening
- ✓ Maintains low viscosity at effective loadings
- ✓ Enables consistent dispersion and reliable performance
- ✓ Backed by Dow technology and ChemPoint technical expertise

**SCAN. CONNECT. SOLVE.**



Scan the QR code to talk to ChemPoint's technical specialists about which PARALOID™ Impact Modifier works best for your adhesive formulation and performance goals.