

## Technical Memo

Subject: Lap Shear Performance of Capcure 3-800 on Mild Steel Substrate

### Summary

The lap shear performance of DER 331 (epoxy 190) cured with Capcure 3-800, using GPA-30 as the catalyst, was examined on mild steel substrate. Four different curing schedules were examined. Curing at 100°C yielded the highest lap shear performance of **3823 psi**.

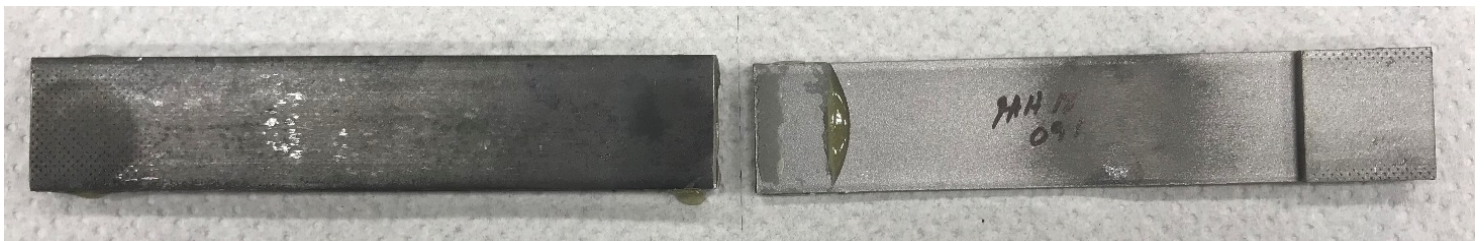
Adhesive Formula Used in All Experiments		
Component		Mass (g)
Capcure 3-800 (base polymericaptan)		8.0
GPA-30 (catalyst)		1.0
DER 331 (epoxy 190)		9.0
5 mil diameter glass beads (for uniform bond line)		1.0

Lap Shear Specimen Details for All Experiments		
Double Lap Specimen from 1/8" Mild Steel, 1" x 1/2" Overlap, Sandblasted, Xylene Degreased		
Lap Shear Values		
Curing Schedule		Lap Shear Value (psi)
24 h at room temperature		1385
15 m at room temperature, then 2 h at 50°C		2118
15 m at room temperature, then 2 h at 100°C		3698
16 h at room temperature, then 2 h at 100°C		3823

### Example Pictures of Fractured Double Lap Specimen

#### Top View



#### Side View