Supporting Information for ACS Applied Materials and Interfaces

Cohesive force change induced by polyperoxide degradation for application to dismantlable adhesion

Eriko Sato,* Hiroshi Tamura, and Akikazu Matsumoto

Contents

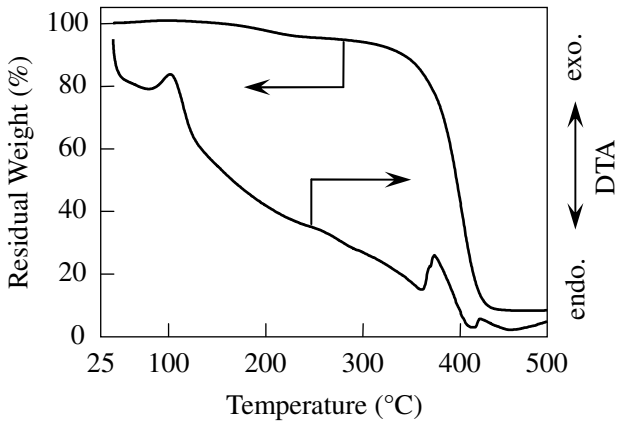

FIGURE S-1. TG/DTA curves of the PP-network PEG-D.

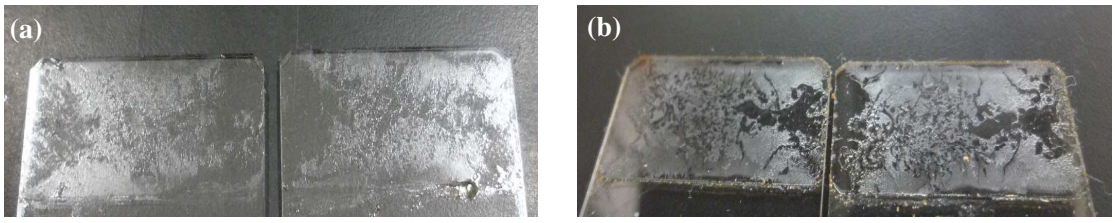

FIGURE S-2. Glass joints bonded by PP network PEG-D after lap-shear adhesive tests (a) before and (b) after heating at 110°C for 2 h.

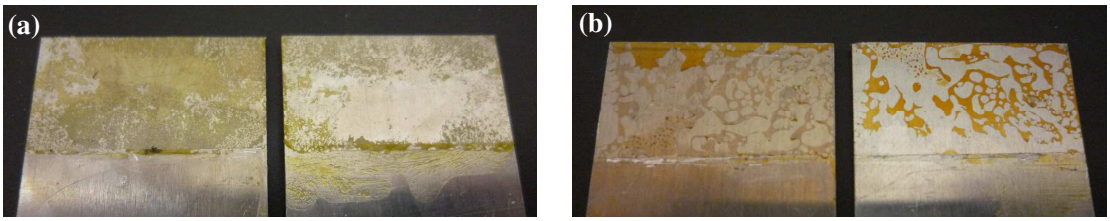

FIGURE S-3. Test joints bonded by network PP-HES ([-OH]:[-NCO] = 100:100) after lap-shear adhesive test (a) before and (b) after heating at 110°C for 2 h.

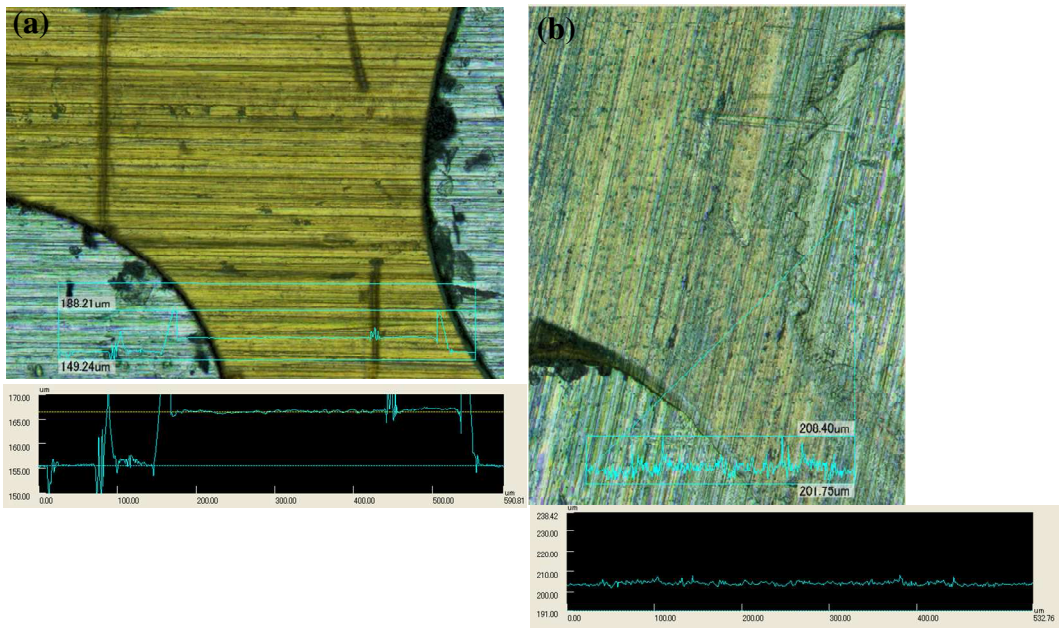

FIGURE S-4. The confocal laser scanning microscope images of the adhesive failure surfaces (upper) and cross-section view (bottom); (a) The specimen with adhesive layer and (b) the specimen without adhesive layer; the specimen was bonded by network PP-HES and was heated at 110°C for 2 h.

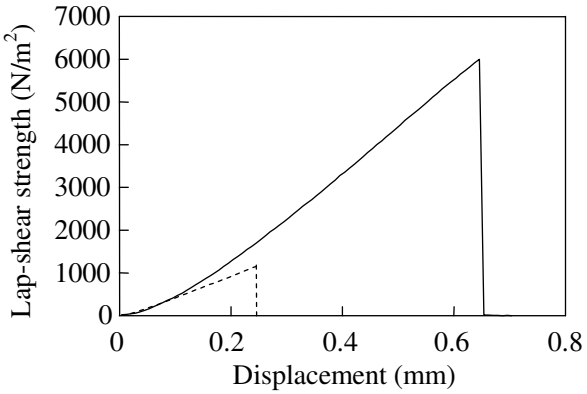

FIGURE S-5. The representative lap-shear strength-displacement curves of aluminum joints bonded by network PP-HES; [-OH]:[-NCO] = 100:50 before (−) and after (---) heating at 110°C for 2 h.

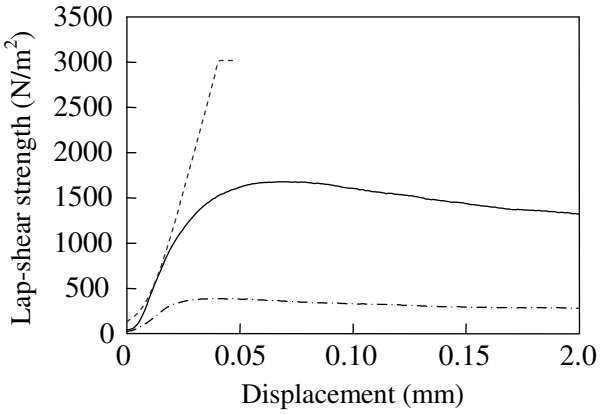

FIGURE S-6. The representative lap-shear strength-displacement curves of aluminum joints bonded by network PP-HES; [-OH]:[-NCO] = 100:25 before (–) and after (---) heating at 110°C for 2 h, and [-OH]:[-NCO] = 100:10 before heating (-·--·-)

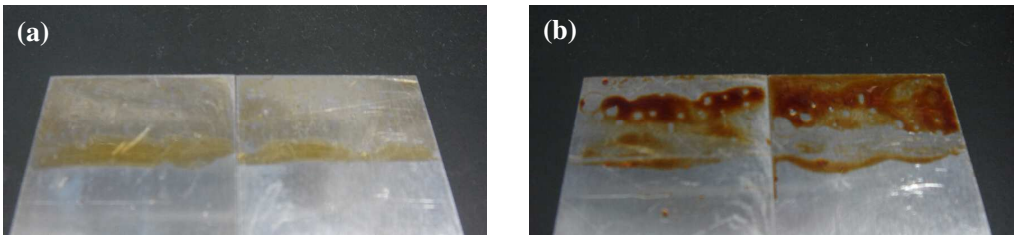

FIGURE S-7. Test aluminum joints bonded by network PP-HES ([-OH]:[-NCO] = 100:25) after lap-shear adhesive test (a) before and (b) after heating at 110°C for 2 h.