Modification of industrial adhesives with specific additives

Dismantling on control by thermal activation

---

Global mechanism

- Activation temperature tuned to the bonding specifications

Fields of application

- Aerospace/aeronautics
  - Proof tests
  - Disassembling on control (launchers)

- Automotive
  - Glazing
  - Body parts (composites, thermoplastics)

- Others
  - Building sealants
  - Machining fixing

Reformulation of industrial references (adhesives), home-made adhesives or primers
Implementation possible in epoxies, polyurethanes, silicones & UV adhesives

Rescoll will provide you with a tailored adaptation to your bonding process

Contact: Maxime OLIVE
maxime.olive@rescoll.fr

Innovative Disassembling Adhesives Research

Industrial structural adhesives with innovative functionality: DISASSEMBLING

- Patented process for dismantling of an adhesive joint

---

Activation temperature tuned to the bonding specifications

1st phase

- Adhesive or primer
- Activation
- Migration to the interface

2nd phase

- Substrate/Adhesive degradation
- Splitting of the interface

3 activation temperatures available

Contact: Maxime OLIVE
maxime.olive@rescoll.fr

Mechanical data
Ceramic bonded on metal alloy with 2K epoxy (industrial reference modified with INDAR)

Example of realization
Dismantling of tailgate (glazing and plastic body parts)
An automotive success story, from lab to scale 1 validation!

Bonding operation
No modification of shelf life and ageing of the adhesive formulation (H7, …)

Thermal activation
Adapted and localized energy delivery
Scale 1 test of industrial energy sources

Dismantling
Dismantling of scale 1 samples: backlite, PP skin and spoiler bonded on an SMC frame.
Clean surfaces after dismantling: easier reuse & recycling

Application developed along with industrial partners

Tempered glass bonded on metal with 1K polyurethane (industrial reference modified with INDAR)

Bonds that debond...
An ecoconception of cars for further environmentally friendly dismantling

A European Project supported within the Sixth Framework Programme for Research and Technological Development