



FOURMI Project :

SMART PAINTS STRIPPING for DUAL AERONAUTICS APPLICATIONS

➤ **Stripping operations (State of Art):**

- Time consuming (several days eg 12 full days with 20 people for a Boeing 777)
- EHS issues (solvents + wastes)

Need for a Quicker and Safer stripping process

FOURMI's Stripping Concept

1. *Modification of the paint system*
2. *Coating of the aircraft (after traditionnal stripping)*
3. *Service*
4. *Stripping triggered by a thermal activation*
5. *Clean removal of the solid wastes, without solvents*

Benefits:

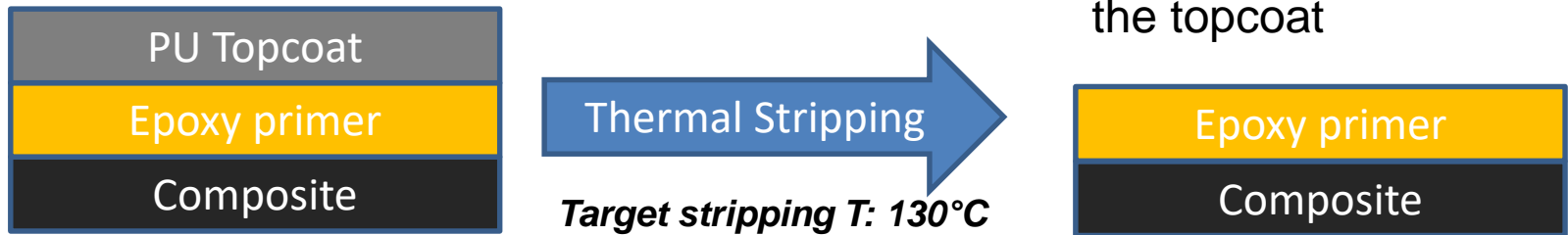
- *Quicker => low cost*
- *Safer for operators*
- *Less impactant on Environment regarding chemical wastes*



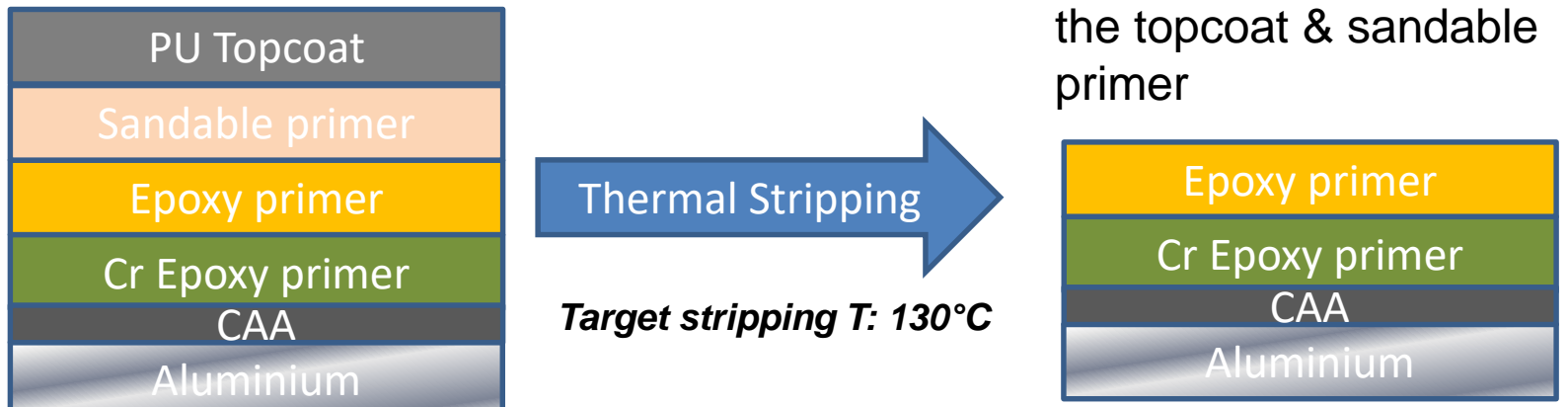
➤ **Fuselage stripping : Specifications**

- Same adhesion and ageing performance after paint modification
- Same aesthetic performance

Case Study 1: Military Aircraft



Case Study 2: Civil Aircraft



Work co-funded in the framework of the RAPID Programme

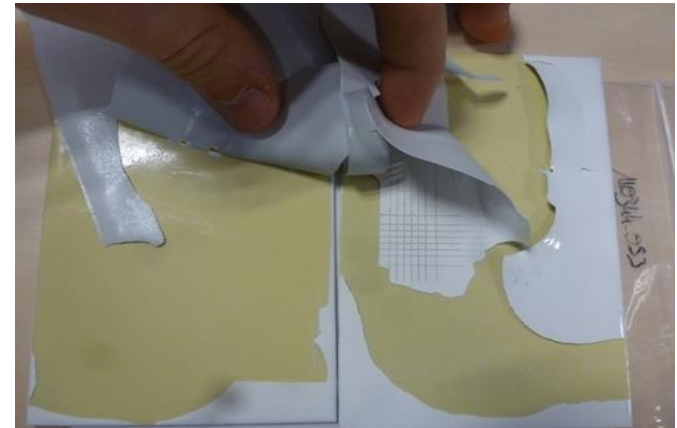
➤ Fuselage stripping : Results

Case Study 1: Military Aircraft

- 100x100mm sample, stripped in less than 1 min
- Selective removal of the topcoat
- 100% solid wastes
- Easy recovering of the clean and non-damaged epoxy primer (pale yellow)

Case Study 2: Civil Aircraft

- Samples, stripped in less than 1 min
- Selective removal of the topcoat + sandable primer
- 100% solid wastes
- Easy recovering of the clean and non-damaged epoxy primer (pale yellow)



➤ Fuselage stripping : Results

Ageing of FOURMI Paint System (Immersion tests)

Condition	Configuration	Result (ISO 2409)
Water 14days @ 23°C	Military and Civil	<ul style="list-style-type: none"> • GTO initial • GT0-1 after ageing • Stripping capability given after ageing
Hydraulic Fluid 14d @ 23°C		
Toluene 25%, trimethylpentane 75% 2h @ 23°C		
Kerozene 7d @ 23°C		
De-icing fluid 7d @ 23°C		

Repainting and re-stripping also proven

➤ FOURMI Project - Next Stages

- **Aeronautical paint Manufacturer X:**
 - Prospecting for a civil aviation application
 - Prospecting for a military naval application
 - Samples supplied to Prospects under NDA, 1st stability tests (including UV) are encouraging; delamination tests underway (technology commissioning by Prospects)
- **AIRBUS:**
 - Evaluation of the technology for different paint applications (underway)