ONGOING: CMC SiC MI 2

Ceramic Matrix Composite

Objectif : Accelerate the development of SiC/SiC ceramic matrix composites on stage 1 for civil aeronautical applications (internal engine parts) up to 1200°C.

Solve control problems and repeatability of the material related in particular to the compaction of powders by relying on observations made in the MI furnace.

3M

45 months

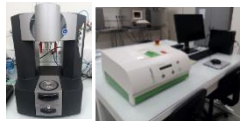
Safran Ceramics, L'Electrolyse, I2M

30 Delivrables

10 Staff Member

3 Platforms

Platforms



Slurry elaboration and characterization
Up to 20l

Multi object injection

Multi-object siliciuration

Main activities

Process robustness (fixed-range control map, boundary conditions) and identification of key process parameters

Reduced range time → Texture treatment, moulding, injection, cleaning, drying, siliciuration

Scale-up of multi-pieces that goes through the industrialization of injection molds and siliciuration tools → management of filtration problems, surface state control,...

Identification of control systems on technological samples in process
→ automatist of visualization at siliciuration temperature

Reflection on ecodesign → eco-responsible cleaning system

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