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STIR4STEEL

Friction stir welding for improving joinability of high-performance steels for automotive components to boost green road mobility

Deliverable D4.1 (D11)

Mechanical and metallurgical characterization
of base materials

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Publishable Summary

The present Deliverable 4.1 of the Stir4Steel project, developed in the frame of the RFCS Program, summarizes the characterization of the selected base materials that will be used during the project.

Base material	Use case
AlSi10 (Die cast AlSi10MgMnFe0.2)	Case I
TBC800 GI (Trip Bainitic 800 MPa GI)	
MS1500 EG (Martensitic 1500 MPa EG)	
6016 T4 (AA 6016 T4)	Case II
DP800 GI (DP 800 MPa GI)	
TBC1000 EG (Trip Bainitic 1000 MPa EG)	
42CrMo4 steel	Case III
42CrMo4R steel	
42CrMo4MB steel	

Base materials of the Stir4Steel project

Along the different sections of this Deliverable, the metallurgical and mechanical characterization of the different base materials for the different application cases is presented.