

EV Busbar Programme

Introduction

The Busbar Programme is a joint effort of CTDs and the Electrification Strategic Initiative to:

- Be the one-stop for any busbar technical request and promote new project development
- Avoid misuse of testing facilities due to poor communication or planning
- Standardize information format and drop to front-line and enhance communication
- Standardize and review testing methodologies

Latest news

Busbar Workgroup

Busbars Programme Work Group – Organigram



10

Name	Position	Responsibility
C. Abomailek	ADL - P. Electronics (P.L.)	PL: Maintain formats, Organize follow-up Project Lead of P.Electronics NAD Projects. Roadmap preparation, Value added examples generation, test protocols generation
J. Beem	CTD - NAFTA	Lead NAFTA customer related busbar projects and current product developments
G. Biesold	CTD - NAFTA	Lead NAFTA customer related busbar projects and current product developments
P. Stelzer	CTD - EMEA	Lead EMEA customer related busbar projects and current product developments
R. Kun	ADL - eMotors	Project Lead of eMotors NAD Projects. Roadmap preparation, Value added examples generation, test protocols generation
G. Wang	CTD - GC	Lead GC customer related busbar projects and current product developments
H. Komoriya	CTD -APAC	Lead APAC customer related busbar projects and current product developments
G. Vanmeulebeke	VE Senior Expert	Lead the global Virtual Engineering efforts to support the Busbar Workgroup

Busbar Programme - Documents and Visibility

Document	Content	Visibility
Workgroup Public folder	Documents to be accessible by all the Workgroup individuals	Public
Workgroup Projects Exchange Folder	Folders of each of the projects. To be accessed by R&I and CTDs in charge of specific projects	Private
ADL Strategic Initiative Folder	ADL Roadmapping documents	Private
Customer CTQs Busbars	Busbar CTQs gathered from different customers	Private - CTDs, ADL, MKT
Transportation Busbars Workgroup	General View and Explanation of the duties of the programme, Updated project follow-up pages	Public
Value added Roadmap of Activities	Electrification Initiative document where the Value added activities Roadmap is explained	Private - ADL, MKT
Power Electronics Roadmap	Document for the follow-up of Power Electronics Activities	Private - ADL, MKT
ADL Virtual Engineering	Access to all the simulations performed by the team.	Public on demand
Busbar Materials Selection Guide	Busbar CTQs guide and grades selection	Private - CTDs, ADL, MKT
Overmolding Understanding for Busbar Applications	Extensive comparative study of different grades	Private - CTDs, ADL

Busbar Projects List

Code	Project Title	Goal	Owner	Project Lead	Start Date	End Date	Status	Comments
WEGO	Best In Class Ryton PPS for Busbars	Develop a Ryton grade for busbar application with CTI>300V, Thermal Shock withstand > 300 Fuji mold	C. Abomailek	L. Malassis	March 2023	October 2023	Closed	
WEGO10044	Ryton Supreme HV for PE Busbar Applications	Carry out a test battery to R-7-600BL HV overmolded over Alpharetta and Fuji Busbar molds and check it's suitability for HV automotive power electronics busbars.	C. Abomailek	C. Abomailek	November 2023	March 2024	Closed	Continuation of Best in Class Grade failed. Using the project to test the new Busbar Test Protocol. Test Protocol adjusted to perform key tests on busbar samples
WEGO10175	Materials for busbars with good CTI and Thermal Shock	Develop a material grade for busbar application with CTI>300V, Thermal Shock withstand > 300 Fuji mold cycles and cost < 6,1€	C. Abomailek	C. Nwosu	January 2024		Ongoing	Continuation of WEGO 10044
	eMotors busbar Value Added Examples generation	Develop a set of tailored data coming from tests or simulations showing the benefit to use Syensqo grades to enhance the performance of eMotors Products	R. Li	R. Li	January 2024		Ongoing	
	Power Electronics busbar Value Added Examples generation	Develop a set of tailored data coming from tests or simulations showing the benefit to use Syensqo grades to enhance the performance of Power Electronics Products	C. Abomailek	C. Abomailek	January 2024		Ongoing	
	Commercial Characterization of PPA/PPS grades	Test a variety of mechanical and electrical properties across a wide range of materials that could be used in emotor, PE, and battery busbars, including competitive materials.	G. Biesold	G. Biesold			Ongoing	
WEGO9972	Extruded busbars for EV battery-pack applications		G. Wang	G. Wang			Ongoing	
	ATF oil resistance of PPS, PPA, PEEK	Systematic data package of oil resistance of materials	G. Wang	W. Shen	January 2023	January 2024	Closed, now just testing on request	Link
	Alignment experimentation and New Shanghai mold and creating a Thermal Shock Database		C. Abomailek	L. Rao				

Follow-up of related Projects - Capabilities / Developments for multiple applications

Code	Project Title	Goal	Owner	Project Lead	Start Date	End Date	Status	Comments
	Weld Line Impact on Electrical Properties		C. Abomailek	M. Toussi	January 2024	May 2024	Starting	
	Copper treatment for busbar applications		C. Abomailek		January 2023		Starting	