

Electric / Hybrid Vehicles

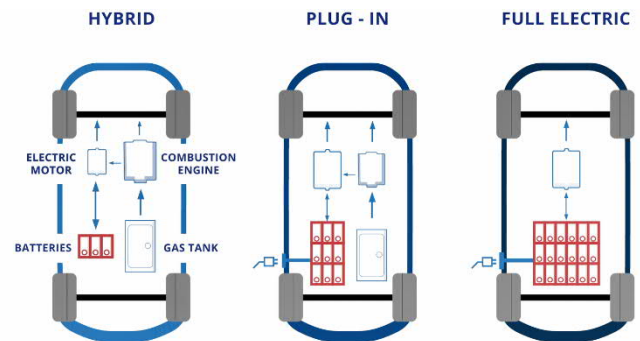
Technical Bulletin

14/10/2021

L8.01.07 UK & Ireland

DESCRIPTION

The growth of electric and hybrid electric vehicles continues to increase in the automotive sector, which is also being driven by the introduction of government legislation. Vehicle manufacturers are transitioning away from internal combustion engines fuelled by diesel and petrol to meet the demands from legislation but also consumer demands. As repairers begin to see more of these types of vehicles being damaged and subsequently repaired, precautions have to be considered to execute an effective repair without causing damage to the electrical components.



CONSIDERATIONS

These guidelines are generic and detailed information on the make and model should be acquired from the relevant OEM to ensure safe repair at all times so as to prevent damage and or injury.

Risk assessment has to be conducted by the repairer to ensure all requirements are met for their equipment, environment and the type of vehicle being repaired to ensure a safe repair

Carry out pre and post diagnostics and note all error codes prior to carrying out any type of repair, reset and or make the vehicle owner aware of any relevant error codes that could cause an issue with the repair

Always check with the particular OEM and Model for repair methods – this is the ultimate guideline(s)

Some vehicle manufacturers may give advice to remove the main battery prior to any repair or drying cycle

Technician should make all electric and high voltage systems safe to work before entering the bodyshop and or paintshop, consult relevant OEM for further information

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Internal battery temperature should be lower than 30°C before entering the spraybooth and or drying cycle, consult relevant vehicle manufacturer for further information

Some vehicles require a minimum charge of 45% in the battery before drying to ensure the vehicle will run after drying, consult relevant vehicle manufacturer for further information

Some vehicles the battery charge is not applicable as it will charge once the engine has been started, consult relevant vehicle manufacturer for further information


Keys should be removed, and ignition switched off to prevent any cooling systems for the battery systems being initiated during the repair or drying cycle


Recommendation on drying temperature is not to exceed 80°C for no longer than 60 minutes, some vehicle manufacturers state maximum 60°C, consult relevant vehicle manufacturer for further information

IR guidelines is 18kw for no longer than 18 minutes, consult relevant vehicle manufacturer for further information

PRODUCTS

Select the products from the below list that suit best your conditions and type of repair

Bodyfiller			
		Bodyfiller Light	Bodyfiller Universal
20°C		15 minutes	15 – 20 minutes
IR	Dry to sand	6 – 8 minutes	6 – 8 minutes

UV-A Curing			
		UV Filler	UV Clear
20°C	Dry to sand	5 minutes*	
	Dry to handle		6 minutes*





* Requires continuous exposure with UV lamp – different types of lamp can reduce the overall drying time

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Primer - Surfacer					
		Graphite Filler	2K Filler 540	2K High build Filler	
20°C	Dry to sand	1,5 hours	3 hours	3 hours	
40°C	Dry to sand	1 hour	1,5 hours	1-5 / 2 hours	
60°C	Dry to sand	30 minutes	25-30 minutes	30 minutes	
IR	Dry to sand	4-8 minutes	4-8 minutes	3 -11 minutes	
Topcoat					
		Topcoat HS 420 Topspeed	Topcoat HS 420 Thinner 420		
20°C	Dust dry	40 minutes	1 hour		
	Dry to handle	6 hours	11 hours		
60°C	Dust dry	10 minutes	10 minutes		
	Dry to handle	20 minutes	30 minutes		
IR	Dry to handle	4 + 8 minutes	5 + 6-9 minutes		
Clearcoat					
		2K HS Premium Clear Accelerator	2K HS Premium Clear Reducer Clear 420		
20°C	Dust dry	30 minutes	1,5 hours		
	Dry to handle	3 hours	4 hours		
50°C	Dust dry	10minutes	20 minutes		
	Dry to handle	20 minutes	30 minutes		
60°C	Dust dry	5minutes	15 minutes		
	Dry to handle	15 minutes	25 minutes		
IR	Dry to handle	4 + 8 minutes	4 + 8 minutes		
Clearcoat					
		2K HS Fast Clear 420 Accelerator	2K HS Fast Clear 420 Reducer Clear 420		
20°C	Dust dry	25 minutes	1 hour		
	Dry to handle	2 hrs 45 minutes	3 hours		
50°C	Dust dry	10 minutes	15 minutes		
	Dry to handle	20 minutes	25 minutes		
60°C	Dust dry	5 minutes	10 minutes		
	Dry to handle	15 minutes	20 minutes		
IR	Dry to handle	4 + 8 minutes	4 + 8 minutes		

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Additional Information

Electric vehicle definitions:

BEV	Battery Electric Vehicle
EV	Electric Vehicle
HEV	Hybrid Electric Vehicle
PHEV	Plug-in Hybrid Electric Vehicle
MHEV	Mild Hybrid Electric Vehicle

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FOR PROFESSIONAL USE WITH SUITABLE HS&E EQUIPMENT

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfil the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give, or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advices given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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