

<b>IMIVPR04</b>	<b>IMIARC08</b>
<b>Prepare metal and pre-painted substrates in an automotive environment</b>	<b>Prepare automotive panels to accept foundation and top coats</b>
	<b>Overview</b>
This standard is about preparing a wide variety of different vehicle panel and component substrates to accept foundation materials and top coats.	This NOS is about preparing a wide variety of different panel and component substrates to accept foundation materials and paint top coats. The ability to identify body panel substrates is required.
	<b>Performance criteria</b>
	You must be able to:
P1 identify the correct preparation method as per the vehicle manufacturer's specification	
P2 use the appropriate personal protective equipment when carrying out all <b>substrate</b> preparation activities	P1 use the appropriate personal protective equipment when carrying out all substrate preparation activities
P3 protect the vehicle and its contents effectively when carrying out all <b>substrate</b> preparation activities	P2 protect the vehicle and its contents effectively when carrying out all substrate preparation activities
P4 select, check and use the correct tools and equipment for the type of <b>substrate</b> preparation activities you are carrying out	P3 select and use the correct tools and equipment for the type of substrate preparation activities you are carrying out
P5 ensure that the tools and equipment you require are in a safe working condition	P4 ensure that the tools and equipment you require are in a safe working condition
P6 identify the body panel <b>substrates</b> accurately prior to undertaking any preparation work	P5 identify the body panel substrate accurately prior to undertaking any preparation work
P7 ensure the finished surface is suitable to accept the next process	
P8 follow the work instructions given for the job correctly	P6 follow the work instructions given for the job correctly
P9 clean and protect all <b>substrates</b> adjacent to those being prepared using the specified method	P7 clean and protect all substrates adjacent to those being prepared using the specified method
P10 report any unrecorded damage to <b>substrates</b> and ancillary fittings to the relevant person(s) promptly and accurately	P8 report any unrecorded damage to substrates and ancillary fittings to the relevant person(s) promptly and accurately
P11 remove and store safely any components likely to be affected by the preparation process (where appropriate) referring to manufacturers methods	P9 remove and store safely any components likely to be affected by the preparation process
P12 keep your work area clean and tidy throughout all preparation activities	P10 keep your work area clean and tidy throughout all preparation activities
P13 prepare all the panel <b>substrates</b> required following health and safety requirements and using:	P11 prepare all the relevant substrates following health and safety requirements and using:
P13.1 suitable materials for the type of <b>substrate</b>	P11.1 suitable materials for the type of substrate
P13.2 the approved method and technique	P11.2 the approved method and technique
P13.3 the approved tools and equipment	P11.3 the approved tools and equipment
P14 ensure all prepared areas are free from contamination and ready for the application of foundation and top coat materials	P12 leave all the areas prepared free from contamination and ready for the application of foundation and top coats
P15 dispose of waste materials to conform with legal, environmental and workplace requirements	P13 dispose of waste materials to conform with legal, environmental and workplace requirements and procedures
P16 leave tools, equipment and work environment in a clean and serviceable condition, as appropriate	
P17 complete all vehicle preparation activities within the agreed timescale and to an agreed quality control process	P14 complete all vehicle preparation activities within the agreed timescale
P18 report any anticipated delays in completion to the relevant person(s) promptly	P15 report any anticipated delays in completion to the relevant person(s) promptly
<b>Knowledge and understanding</b>	<b>Knowledge and understanding</b>
You need to know and understand:	You need to know and understand:
	<b>Legislative and organisational requirements and procedures</b>
K1 the health, safety and legal requirements relating to the preparation of panel <b>substrates</b> for foundation and top coats	K1 the health, safety and legal requirements relating to the preparation of substrates for foundation and top coats

K2 your workplace procedures for:	K2 your workplace procedures for:
K2.1 the referral of problems	K2.1 the referral of problems
K2.2 the reporting of delays to the completion of work	K2.2 reporting of delays to the completion of work
K2.3 the completion of work records	K2.3 completion of work records
K2.4 the use of personal and vehicle protection	K2.4 personal protection
K22 how to work safely avoiding damage to vehicles, personal injury and injury to colleagues	K3 how to work safely avoiding damage to vehicles, personal injury and injury to colleagues
K3 the work that needs to be done and the standard required	K4 the work that needs to be done and the standard required
K4 the importance of reporting anticipated delays to the relevant person(s) promptly	K5 the importance of reporting anticipated delays to the relevant person(s) promptly
K5 the requirements for protecting the vehicle and contents from damage before, during and after foundation and top coat preparation activities	K6 the requirements for protecting the vehicle and contents from damage before, during and after foundation and top coat preparation activities
K6 the importance of selecting, using and maintaining the appropriate personal and vehicle protective equipment when preparing panel <b>substrates</b> for foundation and top coats	K7 the importance of selecting, using and maintaining the appropriate personal protective equipment when preparing substrates for foundation and top coats
K7 the relationship between time, cost and productivity	K8 the relationship between time and cost
K23 how to dispose of waste materials in compliance with any environmental requirements/legislation and workplace procedures	
K24 the importance of disposing of waste safely and the consequences of not doing so to the business, others and the environment	K9 the environmental requirements for the disposal of waste materials and the consequences to the environment, others and the business of incorrect disposal
	<b>Tools and equipment</b>
K8 how to select, adjust and use the correct tools and equipment throughout the preparation process	K10 how to prepare, test and adjust hand and power sanders and masking material dispensers
	K11 how to use hand and power sanders, extraction and masking equipment
	<b>Foundation and top coats preparation</b>
K9 how to recognise damage to <b>substrates</b> and ancillary fittings	K12 how to recognise damage to substrates and ancillary fittings
K10 how to test and recognise <b>substrates</b> and assess suitability for repair	K13 how to recognise substrates
K11 how to rectify substrate defects	
K12 how the <b>substrate</b> affects the preparation process	K14 how the substrate affects the preparation process
K13 how to source, use and understand the vehicle manufacturer's methods and limitations	K15 how to interpret manufacturer's preparation schedules
K14 how to prepare new and repaired panels using the correct techniques	K16 how to prepare new and repaired panels using recognised methods and techniques
K15 how to carry out <b>preparation procedures</b> to avoid materials wastage and vehicle contamination for each stage of the preparation process	K17 how to carry out masking procedures to avoid material wastage and vehicle contamination for each stage of the preparation process
K16 how to prepare and protect panels and parts adjacent to the area being painted	K18 how to prepare panels and parts adjacent to the area being painted
K17 the factors governing the choice of panel preparation methods for <b>substrate</b> materials	K19 the factors governing the choice of panel preparation methods for different substrates
K18 the types and grades of available abrasives and the factors governing their use for different <b>substrates</b>	K20 the types and grades of available abrasives and the factors governing their use for different substrates
	K21 the implications of not following the correct abrasive process and its effect on the overall quality process
	K22 the implications of static when working with plastic components
	K23 methods of protecting panels and parts adjacent to the areas being painted and the circumstances in which they should be used
	K24 methods and techniques of masking (including paper and sheet masking) and the circumstances in which they should be used
K19 the importance of following manufacturer's methods and using their approved techniques of working (including use of materials and equipment)	K25 the importance of following manufacturer's instructions and using their approved methods of working (including use of materials and equipment)
K20 the consequences of failing to follow manufacturer's methods and processes	K26 the consequences of failing to follow manufacturer's instructions

K25 the implications of not following an agreed quality control process	
K21 the importance of working to agreed timescales and keeping others informed	K27 the importance of working to agreed timescales and keeping others informed of progress or anticipated delays promptly
<b>Additional Information</b>	
<b>Scope/range</b>	<b>Scope/range</b>
1 <b>Substrates</b> include:	1 <b>Substrates</b> are:
1.1. electro-coated panels	1.1. electro-coated panels
1.2. repaired panels	1.2. repaired panels
1.3. original manufacturer's finish	1.3. original manufacturer's finish
	1.4. plastic components
1.4. zinc coated panels	1.5. zinc coated panels
1.5. steel panels	1.6. steel panels
1.6. aluminium panels	1.7. aluminium panels
	1.8. composite panels
1.7. previously primed panels	1.9. previously primed panels
1.8 . protection additive/film	
2 <b>Preparation</b> activities include:	2 <b>Methods and techniques</b> are:
2.1. abrasives	
2.2. feathering out	2.1. feathering out
2.5. de-greasing	2.2. de-greasing
2.3. flattening	2.3. flattening using guide coats
2.4. using guide coats	
2.6. conditioning	
2.7. masking for foundation and top coats	2.4. masking for foundation and top coats
	2.5. plastic preparation
2.8. tack off techniques	2.6. tack off
	3 <b>Tools and equipment</b> are:
	3.1. hand and power sanders
	3.2. masking material dispensers
	3.3. extraction