

# TEST PROJECT CAR PAINTING

## WSC2015\_TP36\_actual

Submitted by:

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Member country/region: United States of America and Denmark





## CONTENTS

This Test Project proposal consists of the following documentation/files:

- WSC2015\_TP36\_pre\_EN.doc task specification with **30% change**



## DESCRIPTION OF PROJECT AND TASKS

The Test project uses three car panels and one non-steel panel. One of the car panels is pre painted at the manufacturing factory.

Team Leader	Module description	
Module A	Spot repair on pre painted left wing	2.5 hrs
Module B	Masking of car and plastic part	2.5 hrs
Module C	Standard application inside and outside right door	5.0 hrs
Module D	Wet on wet right wing (three layer)	2.5 hrs
Module E	Colour mixing	2.5 hrs
Module F	Design on pre painted left door	5.0 hrs
		20.0 hrs

Colour description		
Colour - 2Stage	Inside right door	Code: VW LK5M
Colour - 2Stage	Outside right door	Code : TOY 789
Colour - 3Stage	Wet on wet right wing	Code: RENUIT NNP(3 LAYER)
Colour - No paint	Non steel panel	Code: PEU 661/A
Colour	Spot repair left wing- Pre painted	Code:VW LA7W
Colour – Per design	Left door for design - Pre painted	Code: SUBARU 88F
Colour	For design	Code:

A number of colour codes will be decided by the judging panel at the competition

Panels description	
Panel # 1	Pre painted left door
Panel # 2	OEM replacement right door
Panel # 3	Pre painted left wing
Panel # 4	OEM replacement right wing
Panel # 5	Front bumper

There will be an introduction 5-10 minutes before each module

### PLEASE TAKE NOTE OF THESE SYMBOLS



You must stop and have your work judged



Turn in sprayout sample



# INSTRUCTION TO THE COMPETITOR

<p><b>Module A : Spot repair on pre painted part (two layer)</b></p>	<p><b>Time allowed 2.5 HRS</b></p>
<ul style="list-style-type: none"> <li>Use the wing (Panel # 3)</li> </ul>	
<ul style="list-style-type: none"> <li>The scratch on this panel is to be repaired using a spot repair technique</li> <li>You must limit the extent of the clear coat to the boundary indicated in the drawing CP3</li> </ul>	
<ul style="list-style-type: none"> <li>Once the spot repair has been marked/scored you can polish the repair</li> </ul>	
<p><b>Module B: masking and plastic repair</b> (Panel#5 for plastic repair)</p>	<p><b>Time allowed 2.5 HRS</b></p>
<ul style="list-style-type: none"> <li>Masking side of vehicle/car/and jambs</li> </ul>	
<ul style="list-style-type: none"> <li>Expert will valuate masking outlines</li> </ul>	
<ul style="list-style-type: none"> <li>Repair damaged area</li> </ul>	
<ul style="list-style-type: none"> <li>Apply primer</li> </ul>	
<ul style="list-style-type: none"> <li>Apply base and clear</li> </ul>	
<p><b>Module C: Standard application, inside and outside door</b></p>	<p><b>Time allowed 5.0 HRS</b></p>
<ul style="list-style-type: none"> <li>Use the OEM replacement door (Panel # 2)</li> </ul>	
<ul style="list-style-type: none"> <li>Prepare damaged area for polyester filler</li> <li>Apply polyester filler to damaged area</li> <li>Prepare the outside and inside for primer filler</li> </ul>	
<ul style="list-style-type: none"> <li>Apply Primer filler inside and outside</li> <li>Sand primer filler and prepare for base</li> </ul>	
<ul style="list-style-type: none"> <li>Inside outside - two different colours will be used. Colour is a 2-stage. Apply to given line.</li> </ul>	



<ul style="list-style-type: none"> <li>• Apply outside colour to sprayout card</li> <li>• Clear should be applied to the given standard</li> </ul>	
<ul style="list-style-type: none"> <li>• The panels must be painted in a vertical position</li> </ul>	
<p><b>Module D: Wet on wet right wing (three layer)</b></p>	<p><b>Time allowed 2.5HRS</b></p>
<ul style="list-style-type: none"> <li>• Use the wing (Panel # 4)</li> <li>• Prep panel</li> </ul>	
<ul style="list-style-type: none"> <li>• Apply wet-on-wet primer</li> </ul>	
<ul style="list-style-type: none"> <li>• Match to given colour sample</li> <li>• Apply using the three layer system/process</li> </ul>	
<p><b>Module E: Colour mixing</b></p>	<p><b>Time allowed 2.5 HRS</b></p>
<ul style="list-style-type: none"> <li>• Using supplied colour sample #1</li> </ul>	
<ul style="list-style-type: none"> <li>• Make colour from scratch to match the given sample</li> </ul>	
<ul style="list-style-type: none"> <li>• Using colour sample number #2</li> </ul>	
<ul style="list-style-type: none"> <li>• Adjust colour to match given sample.</li> </ul>	
<ul style="list-style-type: none"> <li>• After completing colour adjustment turn in the sample colours applied to spray out card that you would like to have evaluated</li> </ul>	
<ul style="list-style-type: none"> <li>• <b>Note: You cannot use the scales or computers for this process</b></li> </ul>	
<p><b>Module F: Design on pre painted left door</b></p>	<p><b>Time allowed 5.0 HRS</b></p>
<p>Use the pre painted left front door (Panel # 11) to lay out the design shown in given drawing</p>	
<ul style="list-style-type: none"> <li>• Paint the design in the colours shown</li> </ul>	
<ul style="list-style-type: none"> <li>• Apply – you cannot polish</li> </ul>	
<ul style="list-style-type: none"> <li>• The decal/sticker supplied must be applied to the door as per Drawing</li> </ul>	

## Skill name

## Car Painting

## Criteria

## Mark

A	Spot repair on pre painted left wing	12.50
B	Masking of car and plastic part	12.50
C	Standard application inside and outside right door	25.00
D	Wet on wet right wing (three layer)	12.50
E	Colour mixing	12.50
F	Design layout and polish	25.00

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type O = Obj S = Sub J = Judg	Aspect - Description	Judg Score
A1	Preparation of guard for spot repair	O	Repair area correctly prepared	
		O	Repared area correctly clean	
		O	Repared area primed correctly	
		O	Primer/filler sanded correctly before colour.	
A2	Application of base coat to spot repair	O	Correct basecoat fade out of the spot repair	
		O	Base coat free of imperfections	
A3	Application of clearcoat to spot repair	O	Free of dirt in the Clear coat	
		O	Clear coat free of runs or sags	
		O	Clear coat free of reactions?	
		O	Was the end of the clear coat in the correct position	
		O	Was the fade out invisible after polishing	

Sub Criteria ID	Sub Criteria Name or Description	Aspect Type O = Obj S = Sub J = Judg	Aspect - Description	Judg Score
			<input type="radio"/> Are there any visible sanding or polishing marks <input type="radio"/> Was the gloss the same as standard? <input type="radio"/> Were safety standards adhered too?	
B1	Preparation and painting of non steel panel		<input type="radio"/> Damaged area repaired correctly <input type="radio"/> Bumper sanded correctly	
B2	application of basecoat to non steel part		<input type="radio"/> Panel completely covered <input type="radio"/> Base coat free from reactions	
B3	Application of clearcoat to non steel panel		<input type="radio"/> Clearcoat is applied to whole panel <input type="radio"/> Clearcoat free of reaktion <input type="radio"/> Clearcoat gloss level <input type="radio"/> scratch test adhesion	
B4	Masking of vehicle		<input type="radio"/> Vehicle cleaned correctly <input type="radio"/> Correct use of masking tapes <input type="radio"/> Correct use of trim masking tape <input type="radio"/> Correct use of soft edge tape <input type="radio"/> Minimum 30 cm. Area protected <input type="radio"/> No folds or wrinkles <input type="radio"/> All masked area protected from overspray <input type="radio"/> No overtaping <input type="radio"/> Were safety standards adhered too?	
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type O = Obj S = Sub J = Judg	Aspect - Description	Judg Score
C1	Preparation of OEM exterior door			

		<input type="radio"/> OEM panels correctly cleaned before sanding? <input type="radio"/> OEM primer completely removed from repair area <input type="radio"/> Repair completed efficiently (putty) <input type="radio"/> Deep sanding scratches in the putty <input type="radio"/> Porosity in the putty, filler, stopper <input type="radio"/> Health and safety <input type="radio"/> OEM panels correctly sanded? <input type="radio"/> OEM panels correctly sanded? <input type="radio"/> OEM panels correctly cleaned? <input type="radio"/> Health and safety <input type="radio"/> Correct primer applied to bare metal / repair area etch? <input type="radio"/> Filler thickness correctly before sanding <input type="radio"/> Filler / primer correctly sanded <input type="radio"/> OEM panels correctly sanded? <input type="radio"/> OEM panels correctly sanded?	
C2	Preparation of OEM interior door	<input type="radio"/> Does the filler/ primer cover the whole area of the interior? <input type="radio"/> OEM panels correctly sanded?	
C3	Application of base coat to exterior door	<input type="radio"/> Free of imperfections marks in the base coat <input type="radio"/> Is the shape of the polyester filler area correct <input type="radio"/> Is any reaction in the polyester putty area? <input type="radio"/> Free of over spray? <input type="radio"/> Base coat free from banding and Mottling <input type="radio"/> have all areas been covered? <input type="radio"/> Sample Card has been painted	
C4	Application of clearcoat to door exterior	<input type="radio"/> Have all areas been covered? <input type="radio"/> The clear coat free of any reactions? <input type="radio"/> Clear coat free of runs or sags <input type="radio"/> Is the orange peel the same over the entire surface the door <input type="radio"/> health and safety	
C5	Application of basecoat to interior door	<input type="radio"/> Are all areas of the interior covered with base coat? <input type="radio"/> Was the panel masked to the given line <input type="radio"/> No paint lifting between inside and outside colour <input type="radio"/> No overspray	
C6	Application of clearcoat to door interior	<input type="radio"/> Free or run or sags?	



Sub Criteria ID	Sub Criteria Name or Description	Aspect Type O = Obj S = Sub J = Judg	Aspect - Description	Judg Score
		<input type="radio"/> Very dry area? <input type="radio"/> Health and safety <input type="radio"/> Were safety standards adhered too?		
D1	Preparation of right wing for nonsanding	<input type="radio"/> Panel clean correct? <input type="radio"/> Panel correct sanded <input type="radio"/> Panel correct sanded <input type="radio"/> Wet on wet nonsanding applied correctly <input type="radio"/> Basecoat applied correct? <input type="radio"/> Basecoat applied correct? <input type="radio"/> Clearcoat applied correct? <input type="radio"/> Clearcoat applied correct? <input type="radio"/> Clearcoat applied correct? <input type="radio"/> Correct applied thickness? <input type="radio"/> Colour match		
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type O = Obj S = Sub J = Judg	Aspect - Description	Judg Score
E1	Matching colours (mix by eye)	<input type="radio"/> Correct basecoat applied to spraycart? <input type="radio"/> Correct Clearcoat applied to spraycart? <input type="radio"/> Matching colour to standard given the tinter Numbers  <input type="radio"/> Matching colour to standard given the tinter Numbers		

E2	Matching off shade	<input type="radio"/> Matching colour to standard given the tinter Numbers  <input type="radio"/> Correct basecoat applied to spraycart? <input type="radio"/> Correct Clearcoat applied to spraycart? <input type="radio"/> Match colour to standard with missing tinter given  <input type="radio"/> Match colour to standard with missing tinter given		
Sub Criteria ID	Sub Criteria Name or Description	Aspect Type O = Obj S = Sub J = Judg	Aspect - Description	Judg Score
F1	Dimension of decoration	<input type="radio"/> Design #1 <input type="radio"/> Design #2 <input type="radio"/> Design #3 <input type="radio"/> Design #4 <input type="radio"/> Design #5 <input type="radio"/> Design #6 <input type="radio"/> Design #7 <input type="radio"/> Design #8 <input type="radio"/> Design #9 <input type="radio"/> Design #10 <input type="radio"/> Design #11 <input type="radio"/> Design #12		
F2	Dimensions of decoration	<input type="radio"/> Design free of overspray <input type="radio"/> Design free of tape printing		

F3	Colours applied in the correct position	<input type="radio"/> Sharpness of the edges #1 <input type="radio"/> Sharpness of the edges #2 <input type="radio"/> Sharpness of the edges #3 <input type="radio"/> Sharpness of the edges #4 <input type="radio"/> Sharpness of the edges #5 <input type="radio"/> Sharpness of the edges #6 <input type="radio"/> Sharpness of the edges #7 <input type="radio"/> Sharpness of the edges #8 <input type="radio"/> Sharpness of the edges #9 <input type="radio"/> Sharpness of the corner #1 <input type="radio"/> Sharpness of the corner #2 <input type="radio"/> Sharpness of the corner #3 <input type="radio"/> Sharpness of the corner #4 <input type="radio"/> Sharpness of the corner #5 <input type="radio"/> Sharpness of the corner #6  <input type="radio"/> Colours applied in correct positions <input type="radio"/> Do all colours cover correctly <input type="radio"/> is the decal in the correct position #1 <input type="radio"/> is the decal in the correct position #2 <input type="radio"/> is the decal in the correct position #3 <input type="radio"/> is the decal in the correct position #4 <input type="radio"/> Is the decal free from creases <input type="radio"/> Are the decal free of cuts and tears <input type="radio"/> Are there application defects in the decal	
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Extra Aspect Description (Obj or Subj) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Obj Only)	WSSS Section	Max Mark
Incl. edges are evenly feathered out	Yes or no.	2	1.00
	Yes or no	2	0.25
Wash primer and primer/filler used.	Yes or no.	3	0.25
1-2 rub throughs deduct 0.5, more than 2 rub throughs de	No rub throughs	2	0.50
Yes or no.	Yes or no.	4	1.25
Eg. Banding, mottling, sanding scratches. Full coverage 1	Free max	4	2.00
1-4 deduct 0.25 marks, 5 or more deduct all marks	Free max	5	0.50
Yes or no.	Yes or no.	5	0.50
Fish eyes, etc. Deduct 0.25 per reaction evident.	Free max	5	1.00
450mm from the front wing tip.	Yes or no.	5	1.00
Yes or no.	Yes or no.	8	2.00

Criterion  
A

Total  
Mark

12.50

1-2 deduct 0.5 marks, 3-4 deduct 0.75 marks, 5 or more	Free max	8	1.00
Use gloss meter to determine according to industry standard	Yes or no	5	1.00
Yes or no.	Yes or no.	1	0.25

Extra Aspect Description (Obj or Subj) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Obj Only)	WSSS Section	Max Mark
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**Criterion B**      **Total Mark 12.50**

According to industri standart	Yes or no	2	1.00
	Yes or no	2	0.50
Deduct 0,25 marks per reaction	Yes or no	4	1.00
	Tolerance	4	0.75
Deduct 0,25 marks per reaction	Yes or no	5	1.00
	Tolerance	5	0.75
According to industri standart	Yes or no	5	0.50
According to industri standart	Yes or no	3	0.50
According to industri standart	Yes or no	2	0.50
According to industri standart	Tolerance	5	2.00
According to industri standart	Yes or no	5	0.50
According to industri standart	Yes or no	5	0.50
According to industri standart	Yes or no	3	0.50
Deduct 0,25 per mistake	Tolerance	3	0.75
Deduct 0,25 per mistake	Tolerance	3	1.00
	Yes or no	3	0.50
Working area was clean and tidy	Yes or no	1	0.25

**Criterion C**      **Total Mark 25.00**

Extra Aspect Description (Obj or Subj) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Obj Only)	WSSS Section	Max Mark
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Cleaning with silicon cleaner and whole panel completely removed?	Yes or no.	2	0.25
More than two fills applied to correct repair deduct marks	Yes or no.	2	0.50
Putty and area around, visible scratches higher that P240	Yes or no	2	0.25
Are any hole in the putty, bigger that 0.1mm	Yes or no	2	0.50
Safety rules	Yes no	1	0.25
no shiny areas // 5mmx5mm -0,25 .		2	1.00
Surface should not be cut through // 1mm - 4 cut through		2	1.00
No sanding dust		1	0.25
Safety rules	Yes no	1	0.25
If not applied loose all	Yes or no.	3	0.50
Within tolerance between glasurit data sheet?	Tolerance	3	1.00
Surface should not be cut through 3mm 4 cut through or n	Yes or no.	2	1.00
no shiny areas, 5mm -0,25 .		2	0.50
Surface should not be cut through // 2mm - 4 cut through		1	0.50
check all the part. 1 area more than 5mm=-0.25	Tolerance	3	0.50
Surface should not be cut through 3mm 4 cut through or n	Yes or no	1	0.50
Visible sanding scratches in the filler. 1 mistake =-0,25	Tolerance	4	1.00
Check the shape from side angle of the door	Tolerance	2	2.00
Hole, Cooking		2	0.50
Over spray at the interior more than 2mm -0,25 4 mm-0,50	Yes or no	4	0.50
Heavy Mottling deduct 0.5 mark	Yes or no	4	1.00
Check the 4 sides. 1 side more than 1cm=-0.25	Yes or no.	4	0.75
Does the card was painted in the right color?	Yes or no	1	0.25
Check the 4 sides. 1 side more than 1cm=-0.25	Yes or no.	7	0.75
	Yes or no	7	0.50
More than 3mm loose -0,25 more loose all	Yes or no	5	0.75
Check with the cards. More than 1 cards difference-0,5, 2	Standard	3	1.50
Safety rules	Yes or no	1	0.25
visible part over the given line. 1 area=-0.25	Yes or no.	4	0.75
Missed the line more than 1mmX2mm.Per area loose 0.5	Tolerance	7	1.50
More than 2mm loose -0,50.	Yes or no	7	1.50
Over spray at the exterior - more than 2mm -0,50 4 mm-1	Tolerance	4	1.00
More than 5mm high = -0.25	Yes or no	2	0.50

very strong orange peel (less than card 3) over the given	Tolerance	3	0.50
Safety rules	Yes no	1	0.25
Working area was clean and tidy	Yes or no	1	0.25

Extra Aspect Description (Obj or Subj) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Obj Only)	WSSS Section	Max Mark
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**Criterion D**      **Total Mark**      **12.50**

Clean all over?	Yes or no	1	0.50
See standart		1	0.50
Surface should not be cut through 10mm 3cut through or		1	0.50
not covered -1,00, runs -1,00		5	2.00
not covered -1,00, imperfections -1,00		4	2.00
Heavy mottling	Yes or no	4	1.00
No dry area? Even	Yes or no	5	1.00
Heavy dirt	Yes or no	5	1.00
Runs or sags	Yes or no	5	1.00
Follow industry standards +/- 20 MY	Yes or no	3	2.00
See standart	Yes or no	6	1.00

Extra Aspect Description (Obj or Subj) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Obj Only)	WSSS Section	Max Mark
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**Criterion E**      **Total Mark**      **12.50**

Basecoat not covered -0,50 Basecoat even -0,25	Yes or no	4	0.75
Clearcoat is not correct		5	0.50
Follow industry standards		6	2.00
Exact match    2,0 P			
Blendable shade 1,0 P			
None blendible    0,0 P			
Follow industry standards		6	2.00
Exact match    2,0 P			
Blendable shade 1,0 P			

None blendible 0,0 P Follow industry standards Exact match 2,0 P Blendable shade 1,0 P None blendible 0,0 P		6	2.00
Basecoat not covered -0,50 Basecoat even -0,25 Clearcoat is not correct Follow industry standards Exact match 2,0 P Blendable shade 1,0 P None blendible 0,0 P Follow industry standards Exact match 2,0 P Blendable shade 1,0 P None blendible 0,0 P	Yes or no	4 5 6  6	0.75 0.50 2.00  2.00

Extra Aspect Description (Obj or Subj) OR Judgement Score Description (Judg only)	Requirement or Nominal Size (Obj Only)	WSSS Section	Max Mark
±2.0mm tolerance	Tolerance	6	0.50
±2.0mm tolerance	Tolerance	6	0.50
±2.0mm tolerance	Tolerance	6	0.50
±2.0mm tolerance	Tolerance	6	0.50
±2.0mm tolerance	Tolerance	3	0.50
±2.0mm tolerance	Tolerance	8	0.50
±2.0mm tolerance	Tolerance	8	0.50
±2.0mm tolerance	Tolerance	8	0.50
±2.0mm tolerance	Tolerance	8	0.50
±2.0mm tolerance	Tolerance	3	0.50
±2.0mm tolerance	Tolerance	3	0.50
±2.0mm tolerance	Tolerance	3	0.50
0.25 * 8 = 2.00, one part of overspray= -0.25, if 8 parts of	Yes or no	2	2.50
0.25 * 8 = 2.00, one part of tape printing= -0.25, if 8 parts of	Yes or no	8	2.00

Criterion F Total Mark 25.00



0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	3	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 * 1 = 0,50, one part line sharpness= -0.50 if 10 parts	Tolerance	7	0.50
0.50 marks per corner	Tolerance	7	0.50
0.50 marks per corner	Tolerance	7	0.50
0.50 marks per corner	Tolerance	7	0.50
0.50 marks per corner	Tolerance	7	0.50
0.50 marks per corner	Tolerance	7	0.50
0.50 marks per corner	Tolerance	7	0.50
1.00 * 3 = 3.00, two part for two colours in wrong position	Tolerance	4	2.00
One colour not correct -0,50 p more then 2 lose all	Yes or no	4	1.50
±2,0mm tolerance,0.50 marks per position	Tolerance	7	0.50
±2,0mm tolerance,0.50 marks per position	Tolerance	7	0.50
±2,0mm tolerance,0.50 marks per position	Tolerance	7	0.50
±2,0mm tolerance,0.50 marks per position	Tolerance	7	0.50
0.25 * 2 = 0.50, one part of creases= -0.25 if 4 parts of creases	Yes or no	2	0.50
0.25 * 2 = 0,50, one part of cuts and tears= -0.25 if 2 parts	Yes or no	8	0.50
0.25 * 2 = 0.50, one defect= -0.25, if 2 defects=0.00 point	Yes or no	8	0.50

Competition Total Mark 100.00