

# Test Project

## *Car Painting*

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# Module A

## Paint a new plastic part



Paint a new bumper with a wet-on-wet system

### Instructions

Participants get a new OEM bumper.

### Preparation

- Preparation of new bumper
  - Bumper must be cleaned. (A-P-40)
  - What do the grinding gradations look like? (material)
- Bumper must check and defects must note (scratches)
  - Bumper must be cleaned. (A-P-25).
  - Prepare metal sample for measure film build Primer filler (Expert)



- Participant must mix- Primer Filler RFU and use **"Job Card"** in Refinity program for all mixings max. 400 ml.
- Apply primer filler greyshade 1 (A-U-33/37/39) included plastic additive (A-A-30) wow version.
  - ½+ 1 spray coats (30-40 µm)
  - Flash of the primer filler (TDS)
  - **STOP/ Before the Base coat is applied the expert evaluate the Primer Filler result!**

**Color – 2 Stage solid Color** must be mixed (flash off time Primer Filler).

- Participants mix the color VW LQ6E
  - Participant must mix- Base coat use **"Job Card"** in Refinity program for all mixings max. 400ml.
  - Participant must mix- Base coat RFU (2:1 with 100-E5) use **"Job Card"** in Refinity program for mixing
  - Prepare metal sample for measure film build of Base coat (Expert) (10-15 µm).



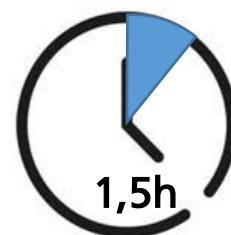
- Apply base coats on the Bumper.
- Application of clear coat (A-C-10 with 1+ ½ or 2 spray coats).
  - Participant must mix- Clear coat RFU and use **"Job Card"** in Refinity program for all mixings max. 450 ml.
  - Prepare metal sample for film build Clear coat, to stick on the bumper/done by Expert
  - (40-60 µm)



- 1+½ spray coats (TDS) or
  - 2 spray coats for Quality (TDS)
- Drying the clear coat with IR lamp
- Clear coat - **gloss finish**
  - Outside high gloss (everywhere)
  - Surface contamination
- No "STOP" during this part of task.
- Save all dry waste in dry waste material container and all liquid waste in liquid material container

# Module B

## Paint a new metal rear hatch



Paint a new metal part with a wet-on-wet system

### Instructions

Participants get an OEM metal rear hatches.

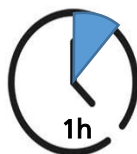
### Preparation

- Preparation of new OEM metal rear hatches
  - Clean the OEM metal fender (A-P-25)
  - What do the grinding gradations look like? (material)
- Check the rear hatch (scratches/ dents and make a note if something is damaged)
  - Clean again the fender. (A-P-25).
  - Participant must mix- Primer Filler RFU and use **"Job Card"** in Refinity program for all mixings max.400 ml.
- Apply primer filler (A-U-33/37/39) with hardener and reducer wow version.
  - ½+ 1 spray coats
  - Flash of the primer filler must flash 25-30 min.
  - **STOP/ Before the Base coat is applied the Expert must evaluate the Primer Filler result!**

Color – 2 Stage metallic Color.

- Participants mix 2 stage metallic color.
  - Participants must mix- Base coat RFU use **"Job Card"** in Refinity program for mixing max 450 ml.
  - Apply base coats on the OEM metal rear hatches.
- Application of clear coat (A-C-10 with 2 or 1 +½ spray coats).
  - Participant must mix- Clear coat RFU and use **"Job Card"** in Refinity program for all mixings max 450 ml.
  - 1+½ spray coats (TDS) or
  - 2 spray coats for Quality (TDS)
  - Drying the clear coat with IR lamp
- Clear coat - **gloss finish**
  - Outside and inside edges high gloss (everywhere)
  - Surface contamination
- **No "STOP" during this part of task.**
- **Save all dry waste in dry waste material container and all liquid waste in liquid material container**

# Module C



## Masking a car body.

Masking a side of a car that front and back door can be painted



### Instructions

We deliver a car for the masking task. Each participant work on one side of the car

It will simulate that the front and the back door could be painted.

### Preparation

- Preparation of car
- Clean the areas to be masked ([A-P-25](#)).
- Masking from inside to outside
- Inside could be paper or soft tape.
- Masking tape 19/25/50 mm



- Outside area in foil.
- Front door Window must be down (left/ right)
- Fine Line 3 mm to 6 mm on the vehicle strips

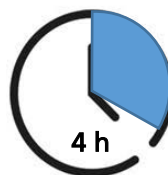


- No air vortex traps in the foil cover



- No “STOP” during this part of task.
- Save all dry waste in dry waste material container !

## Module D



### Paint a new damaged metal door.



Repair a new damaged door with a Primer Filler sanding system and paint the door in two colours

#### Instructions

We give you an OEM damaged metal door.

#### Preparation

- Preparation of new door
  - Clean the OEM door (A-P-25), check the damaged area, clean the door again and sand the damaged areas
  - Preparing OEM door damage area removes e-coat.  
(STOP)
  - Fill the dents with Body Filler, sanding the Body Filler area, sanding inside too.  
(STOP)
  - Cleaning the door in and outside.
  - Participant must mix- Primer Filler RFU max. 440 ml RFU and use **"Job Card"** in Refinity program for all mixings.



- Apply primer filler sanding version in and outside.
  - Drying the Primer Filler with IR lamp, sanding Primer Filler and cleaning the door in and outside  
(STOP)
  - Participants mix the first colors RFU.
  - Participant must mix- Base coat max. 300 ml RFU use **"Job Card"** in Refinity program.
  - Apply first color base coat first on the outside and later inside of the door.
  - Flash of time Participant must mix second color max. 450 ml use **"Job Card"**.
  - Masking the door for the second color application.
- Fine line outside inside/ double paper or folie.



- Cleaning with tack rack before applying the second base coat.
  - Apply second color base coats on the out and later inside of the door, flash of until mat, using dry jets?
- Application of clear coat.
  - Participant must mix- Clear coat max. 400 ml RFU and use **"Job Card"** in Refinity program.
  - Drying the clear coat with IR lamp
- Clear coat - **gloss finish**
  - Outside and inside high gloss (everywhere)



No "STOP" during this part of task.

Save all dry waste in dry waste material container and all liquid waste in liquid material container.

# Module E



## Design

Paint a panel/cover

### Instructions

We give you a Mirror cap.

Day 3 (1h) of competition.

The Design must show the Tricolors of France flag.

And must show the WorldSkills Icon with the wording "Worldskills Lyon 2024" too.

Construction of the colour from the France Flagg: Tricolore

### Preparation

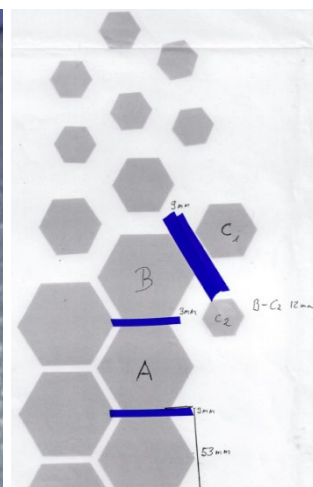
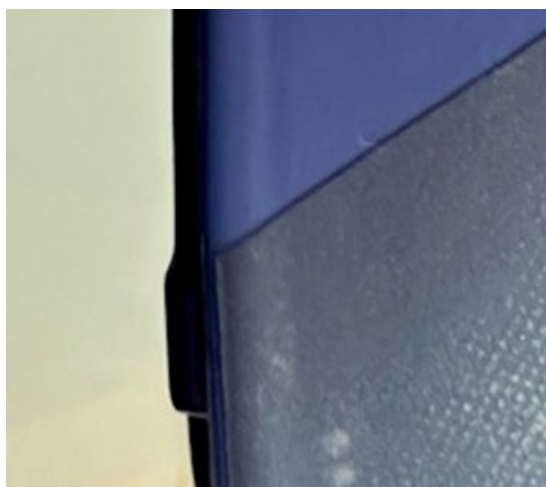
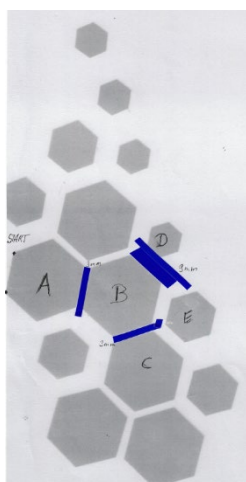
- Preparation of the panel
  - Clean, check and sanding the panel
  - Participant must mix- Primer Filler RFU max. 60 ml RFU and use "Job Card" in Refinity program.
  - Apply primer fille wow version, flash of.
- Participants get premix color blue, white, red and black! Quantity of given colors max. 60ml each.
  - Apply first color and second color of 100 Line of the mirror cup, flash of and apply clear coat.
  - Drying the clear coat with IR



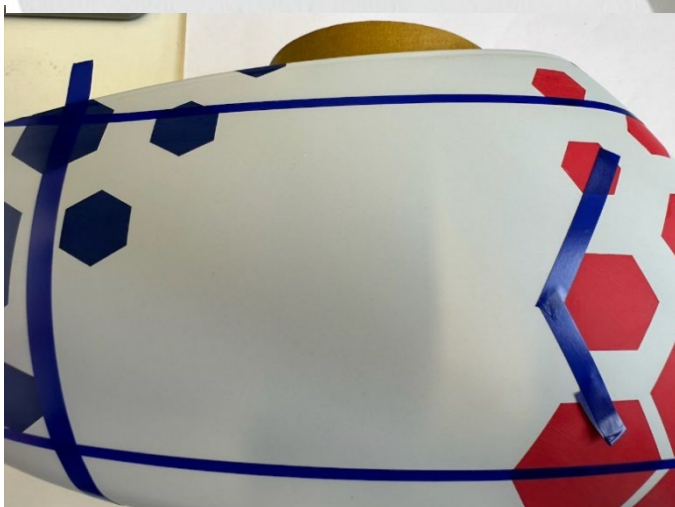
### STOP

Day 4 (2h) of competition.

- Clear coat sanding
  - Sanding the panel (P500/ P1000)
- Masking the mirror cup with given templates and tape.



- Apply the next color of 100 Line of the Design area.
- Flash of between the coats, using dry jets.
- Place the WorldSkills template



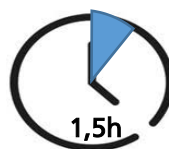
- Apply the fourth color 100 Line of the Design area.
- Flash of between the coats, using dry jets.
- After drying.
- Remove masking.
- Application of clear
  - 2 or ½ + 1 spray cot)
  - Drying the clear coat with IR lamp
- Clear coat - gloss finish
  - Design area in high gloss (everywhere)
  - Surface contamination
  - Flow of Clear



Save all dry waste in dry waste material container and all liquid waste in liquid material container.

## Module F

### Paint a new plastic part



Repair and Paint damaged bumper

#### Instructions

We give you a damaged bumper.

#### Preparation

- Preparation of damaged bumper
  - Clean the bumper
  - Sanding damaged area and check the transition zones for blending.  
(STOP)
  - Participant must mix- Primer Filler RFU and use **"Job Card"** in Refinity program for all mixings.
  - Apply primer filler, drying the primer filler with IR lamp and sanding damaged and blending area.  
(STOP)
  - Cleaning the preparation area.

Colour – 2 Stage Color metallic.

- Participants used the waste base coat material from module A.
  - Apply MB-50 Blending Clear if you want to use it.
  - Apply base coats, for smooth fade-out area hold the spray gun in a 45°-angel.
  - Flash of until mat, using dry jets.
- Application of clear coat.
  - Participant must mix- Clear coat RFU and use **"Job Card"** in Refinity program max. 120 ml
  - Fade out the Clear coat with Blending Additive on the blending zone.
  - Drying the clear coat with IR lamp

No "STOP" during this part of task.

Save all dry waste in dry waste material container and all liquid waste in liquid material container.

# Module G



## Spot repair at a metal rear hatch



Repair and small defect on a metal panel with the spot repair system

### Instructions

We give you a metal rear hatch with a small defect.

### Preparation

- Preparation of defect area, the panel must be painted and dried in a vertical position.
  - Clean the rear hatch polishing the clear coat blending area/ zone and clean the area again.
  - Sanding damaged area and check the transition zones of the material layers.
  - (STOP)
  - Repair the damaged area and apply UV primer fille, dry and sand the UV filler.
  - (STOP)
  - Cleaning the preparation area,

### Color – 2 Stage Color metallic is provided on site

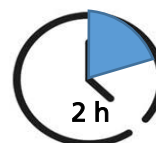
- Competitors mix the color RFU.
  - Competitors must mix- the given Base coat RFU max. 60 ml use **"Job Card"** in Refinity program for mixing.
  - Apply the base coat 100 Line.
- Application of clear coat
  - Competitors must mix- Clear coat RFU max. 50 ml and use **"Job Card"** in Refinity program.
  - Fade out the clear coat with Blending Additive on the blending zone.
  - Drying the clear coat with IR lamp

No "STOP" during this part of task.

Save all dry waste in dry waste material container and all liquid waste in liquid material container

# Draft Module H

## Polish the repaired/painted parts



## Module D/F/G

Polish the three painted parts

### Instructions

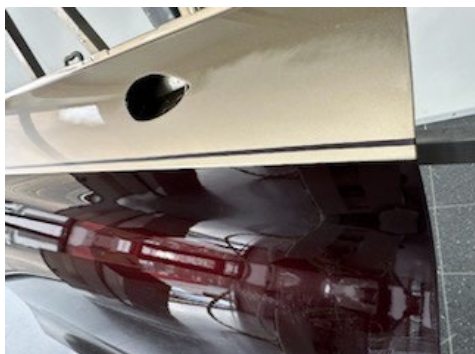
We give you back the panels from module D/F/G.

### Polishing Task 1

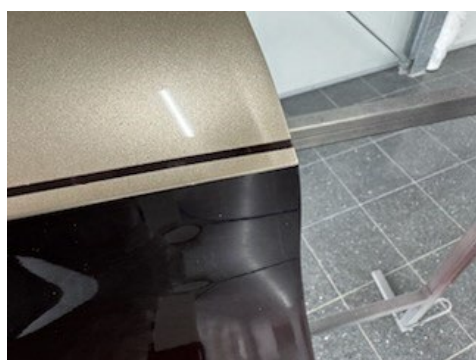
- Preparation of panel from module D.



- Clean the door.
  - Check the outside of the door for dust and masking lines in clear coat.
  - Sanding the dust inclusions and masking lines in the clear coat flat.



- Polishing the outside of the door to a high gloss level.



- Check the result.

### Polishing Task 2

- Preparation of panel from module F.
- Sanding the dust inclusions and masking lines in the clear coat flat.
- Polishing the clear coat sprayed area to a high gloss level.

### Polishing Task 3

- Preparation of rear hatch from module G.
  - Clean the metal panel.
  - Check the clear coat blending zone of the spot repair area.
  - If there is a gloss level difference, polish the clear coat.
- No "STOP" during this part of task.
- Save all dry waste (sanding discs/paper) in dry waste material container.