Arctic Skills 2016

## ArcticSkills 2019 – Car painter

## Task, front fender

 **Part (not attached to vehicle)**

Dent 3 cm i diameter

* 1 front fender with small damage

**Products and processes**

In ArcticSkills 2018 we will use products from [R-M](http://www.rmpaint.com/int) and [Glasurit](https://www.glasurit.com/en-int/) brand’s of BASF. You can find all the processes described in the «[Technical Data Sheets](http://www.rmpaint.com/gb/product_offer/technical_data_sheets)» on the paint supplier’s website (<http://www.rmpaint.com> ), and you will have access to these before and during the competition. The correct procedures are described in the «[Technical Data Sheets](http://www.rmpaint.com/gb/product_offer/technical_data_sheets)», and the judging will be based on that information.

The sanding materials, tools and workplace will be prepared in advance.

## Personal equipment:

Each competitors will bring following personal equipment’s:
Safety shoes, working clothes, goggles and ear protection.

# Schedule

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| --- | --- | --- | --- |
|  |  | Schedule | Max score |
| **A** | Fix dent damage on front fender | 0800 – 1000 | 26 |
| **B** | Spray filler on front fender | 1000 – 1100 | 23 |
|  | Lunch | 1100 – 1130 |  |
| **C** | Paint front door | 1130 – 1400 | 48 |
|  | Total 5 hours | Total 109 |

# Tasks

**Task** **A**

1. Fix dent on fender
2. Use available equipment in the workshop such as hammer, counter hold and grinding tools
3. Spackle with [STOP UNI](http://techinfo.rmpaint.com/en_UK/documents/pdf/tech_infos/STOP_UNI.pdf) or 839-20 and sand it so it’s ready for filler

**Evaluation: Do not proceed until you have been evaluated.**

**Task B**

1. Spray chromate-free wash primer [EUROFILL](http://techinfo.rmpaint.com/en_UK/documents/pdf/tech_infos/EUROFILL.pdf) or 283-150 where necessary
2. Spray [PERFECTFILLER](http://techinfo.rmpaint.com/en_UK/documents/pdf/tech_infos/PERFECTFILLER_GREY.pdf) or 285-555 according to manufacturer’s instructions

**Evaluation: Do not proceed until you have been evaluated.**

**Task C**

1. Sand filler and make it ready to paint
2. Mix and spray basecoat [ONYX HD](http://techinfo.rmpaint.com/en_UK/documents/pdf/tech_infos/ONYX_HD.pdf) or 90 according to manufacturer’s instructions
3. Mix and spray clearcoat [CHRONOLUX](http://techinfo.rmpaint.com/en_UK/documents/pdf/tech_infos/CHRONOLUX_CP.pdf) or 923-625 according to manufacturer’s instructions

Use assessment forms A, B, and C for this task

|  |  |  |
| --- | --- | --- |
|  |  | **Task** |
|  |  | A  |

|  |  |
| --- | --- |
| Car/ Component | Front Fender |

|  |  |
| --- | --- |
| **Time** | 08.00 – 10.00 |
| **Break time**  |  |
| **Task length**  |  |
| **Total task time** |  |

|  |  |
| --- | --- |
| **Task sections / Distribution of points**  | Maximum score |
| **A1** | Health, safety, environment, and labor structure  | 4 |
| **A2** | Wash | 2 |
| **A3** | Fix dent in door | 2 |
| **A4** | Sanding | 2 |
| **A5** | Apply body putty | 4 |
| **A6** | Sanding the putty | 4 |
| **A7** | Surface scuffing/mat | 4 |
| **A8** | Neatness/organization | 4 |
|  |  |  |
| **Task Total** | **26** |

**Task description:**

1. Fix dent on fender with correct equipment
2. Spackle the damaged area
3. Sand the spackle and prepare for filler

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| --- | --- | --- |
|  |  | Assessment Form |
|  |  | A |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Group ID | Description  | Assessment Criteria | Maxpoints | Achieved points Name/candidat |
| **A** | **Fixing the damage** |  |  | A | B | C | D |
| **A1** | **Health, environment and safety**Multiple points deducted for serious/repeated breaking of safety/health rules | Not using gloves | -1p | **4** |  |  |  |  |
| Not using a mask | -1p |
| Not using proper work clothes | -1p |
| Not using safety glassesNot using ear protection | -1p-1p |
|  |  |  |  |  |  |  |  |
| **A2** | **Washing**With cleaner before starting | Not washing before starting fixing/grinding | -1p | **2** |  |  |  |  |
| Not removed glue residues  | -1p |
|  |  |  |  |  |  |  |  |
| **A3** | **Fix damage**Use of repair tools such as hammer and counter hold | Spackled more than 2 mmOutward dent | -2p-1p | **2** |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **A4** | **Sanding**Before spackling | Bottom of dent not grinded cleanUnsanded area berfore spackling | -2p-1p | **2** |  |  |  |  |
|  |  |  |  |  |  |  |  |
| **A5** | **Polyester body putty** | No dust remove | -1p | **4** |  |  |  |  |
| Three times spackling | -2p |
| Large pores/holes in spackle before filler | -2p |
| Too much or not enough hardener | -2p |
|  |  |  |  |  |  |  |  |
| **A6** | **Sanding body putty** | Begin with P320 or finer | -2p | **4** |  |  |  |  |
| If spackling does not finish with P180 (Machine)/ P240/ P320/ OSP 3  | -2p |
| Damage visible after grinding | -2p |
|  |  |  |  |  |  |  |  |
| **A7** | **Surface scuffing/mat** | Use of abrasives other than P400, P500, Gray Scotchbrite or OSP 4 | -2p | **4** |  |  |  |  |
| None sanded aeras | -1p |
| Removed all e-coat down to metal | -1p |
|  |  |  |  |  |  |  |  |
| **A8** | **Neatness/organization** | Do not tidy up tools or equipment after use | -2p | **4** |  |  |  |  |
| Do not sweep, tidy up workspace | -2p |
|  |  |  |  |  |  |  |  |  |
|  |  | Subtract from total |  |  |  |  |  |  |
|  |  |
| **Sub** | Participant’s total points for spackling and preparation | **26** |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  |  | Task |
|  |  | B  |

|  |  |
| --- | --- |
| Car/ Component |  Front fender |

|  |  |
| --- | --- |
| **Time** | 10.00 – 11.00 |
| **Break time**  |  |
| **Task length**  |  |
| **Total task time** |  |

|  |  |
| --- | --- |
| **Task sections / Distribution of points**  | Maximum score |
| **B1** | Health, safety, environment, and labor structure  | 4 |
| **B2** | Washing | 2 |
| **B3** | Mix Acid primer | 2 |
| **B4** | Spray Acid primer | 3 |
| **B5** | Mix filler | 2 |
| **B6** | Spray filler | 4 |
| **B7** | Wash paint gun | 3 |
| **B8** | Neatness/organization | 3 |
| **B9** |  |  |
| **B10** |  |  |
|  **TaskTotal** | **23** |

**Task description:**

1. Prepare fender for primer and filler
2. Mix and spray etch primer/283-150/ Eurofill
3. Mix and spray filler/285-555/ Perfectfiller

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|  |  | Assessment Form |
|  |  | B |

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| --- | --- | --- | --- | --- |
| Group ID | Description  | Assessment Criteria | Maxpoints | Achieved points Name/candidat |
| **B** | **Spray filler on fender** |  |  | A | B | C | D |
| **B1** | **Health, safety and environment**Multiple points deducted for serious/repeated breaking of safety/health rules | Not using gloves | -1p | **4** |  |  |  |  |
| Not using mask | -1p |
| Not using painting clothes | -1p |
| Not using safety glasses  | -1p |
|  |  |  |  |  |  |  |  |
| **B2** | **Washing** | Not washed before spraying | -1p | **2** |  |  |  |  |
| Not removed dust  | -1p |
|  |  |  |  |  |  |  |  |
| **B3** | **Mix acid primer?** | Incorrect mixing ratio or contents | -1p | **2** |  |  |  |  |
| Mix too much / over 1 dl spill | -1p |
|  |  |  |  |  |  |  |  |
| **B4** | **Spray acid primer**Repeated mistakes can mean loss of more points, | Wrong spray gun | -1p | **3** |  |  |  |  |
| Only one coat | -1p |
| Not matte between coats | -2p |
| Paint runs | -2p |
| Not on bare metal  | -2p |
|  |  |  |  |  |  |  |  |
| **B5** | **Mix filler** | Incorrect mixing ratio | -1p | **2** |  |  |  |  |
| Incorrect contents | -2p |
| Over 1 dl spill | -2p |
|  |  |  |  |  |  |  |  |
| **B6** | **Spray filler**Repeated mistakes can mean loss of more points, e.g. multiple runs | Incorrect spray gun  | -2p | **4** |  |  |  |  |
| Less than 2 coats or more than 3 | -2p |
| Filler not matte between coats | -2p |
| Dry spray/ structure /large spraying distance | -1p |
| Filler runs | -1p |
|  |  |  |  |  |  |  |  |
| **B7** | **Wash spray gun ?** | Not washing inside | -2p | **3** |  |  |  |  |
| Not washing outside | -1p |
|  |  |  |  |  |  |  |  |
| **B8** | **Neatness / organization**Repeated mistakes can mean loss of more points | Not cleaning tools after use | -1p | **3** |  |  |  |  |
| Leave air hose on floor, not cleaning in the boot | -1p |
| Leave paper on floor | -1p |
|  |  |  |  |  |  |  |  |  |
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|  |  |  |  | Subtract from total |  |  |  |  |
|  |  |
| **Sub** |  | **23** |  |  |  |  |

|  |  |  |
| --- | --- | --- |
|  |  | Assessment Form |
|  |  | C |

|  |  |
| --- | --- |
| Car/ Component |  Front fender |

|  |  |
| --- | --- |
| **Time** | 11.30 - 14.00 |
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| **Oppgaveseksjoner / poengfordeling** | **Maksimal poengsum** |
| **C1** | Health, safety, environment, and labor structure  | 4 |
| **C2** | Grinding or sanding  | 4 |
| **C3** | Wash and wipe dust | 2 |
| **C5** | Mix basecoat | 2 |
| **C6** | Spray basecoat | 5 |
| **C7** | Wash the painting gun | 3 |
| **C8** | Mix clear coat | 2 |
| **C9** | Spray clear coat | 6 |
| **C10** | Wash the painting gun | 3 |
| **C11** | Neatness and organization | 3 |
| **C12** | Measure total thickness of the paint  | 4 |
| **C13** | Check | 4 |
| **C14** |  |  |
| **C15** |  |  |
| **Task Total** | **42** |

**Task description:**

1. Sand and prepare door for paint
2. Mix and spray basecoat
3. Mix and spray clearcoat

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| Participant Name | School | Assessment Form |
|  |  | C |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Group ID | Description  | Assessment Criteria | Maxpoints | Achieved points Names/candidate |
| **C** | **Paint basecoat and clear coat** |  |  | A | B | C | D |
| **C1** | **Health, safety and environment**Multiple points deducted for serious/repeated breaking of safety/health rules | Not using gloves | -1p | **4** |  |  |  |  |
| Not using mask | -1p |
| Not using painting clothes and hood | -1p |
| Not using safety goggles when washing | -1p |
|  |  |  |  |  |  |  |  |  |
| **C2** | **Sanding**Repeated mistakes can mean loss of more points | Use of other than P400/P500 Mirka OSB 4 or gray Scotchbrite (can start with P320 on damage) | -1p | **4** |  |  |  |  |
| Filler not grinded/sanded enough | -1p |
| Not using Grinding Guide | -1p |
| Bare metal, each place | -1p |
|  |  |  |  |  |  |  |  |
| **C3** | **Washing – Wiping dust**  | Not washing before painting | -1p | **2** |  |  |  |  |
| Not blowing and wiping dust with tack-rag | -1p |
| Not using hood | -1p |
|  |  |  |  |  |  |  |  |
| **C5** | **Mix basecoat** Candidate mixes basecoat RTU (Ready to use) | 1dl over | -1p | **2** |  |  |  |  |
| Incorrect mixing  | -1p |
|  |  |  |  |  |  |  |  |
| **C6** | **Spray basecoat**1st coat - wet2nd coat - half wet3rd coat - effect coats | Incorrect spray gun | -1p | **5** |  |  |  |  |
| Not mat surface between coats | -2p |
| Paint runs | -2p |
| Must repaint | -4p |
| Primer/ filler shines through | -2p |
| Not painting on sides and under | -2p |
| Clouds | -1p-3p |
|  |  |  |  |  |  |  |  |  |
| **C7** | **Wash spray gun** | Not washing inside | -2p | **3** |  |  |  |  |
| Poorly washed inside | -1p |
| Not washing outside | -1p |
|  |  |  |  |  |  |  |  |
| **C8** | **Mix clear coat** | Incorrect mixing ratio | -1p | **4** |  |  |  |  |
| Incorrect contents | -2p |
| Over 1 dl spill | -2p |
|  |  |  |  |  |
| **C9** | **Spray clear coat**1st coat - half wet2nd coat – wet/shiny | Spraying with wrong spray gun | -1p | **6** |  |  |  |  |
| First layer dries for more than 3 minutes | -2p |
| Second coat to thin, leave an structure (Orange Peel) | -2p |
| Cannot deliver to customer, must be repainted | -5p |
| Runs that can be fixed | -2p |
| Too little clear coat on edges | -2p |
|  |  |  |  |  |  |  |  |
| **C10** | **Wash spray gun** | Not washing inside | -2p | **3** |  |  |  |  |
| Poorly washed inside | -1p |
| Not washing outside | -1p |
|  |  |  |  |  |  |  |  |
| **C11** | **Neatness/organization**Repeated mistakes can mean loss of more points | Not cleaning tools after use | -1p | **3** |  |  |  |  |
| Not cleaning the work place  | -1p |
| Leave paper on floor | -1p |
|  |  |  |  |  |  |  |  |  |
| **C12** | **Measure total thickness** | Minimum 100 µm90 µm -1p, 80 µm -2p, 70 µm -3p 60 µm -4p | -1p | **4** |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| **C13** | **Check** | Grinding/sanding marks visible after painting | -2p | **4** |  |  |  |  |
| Damage slightly visible after painting | -1p |
| Damage clearly visible after painting | -2p |
|  |  |  |  |  |  |  |  |  |
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|  |  |
| **Sub** |  | **42** |  |  |  |  |