SEG Awards Level 2

Motor Vehicle Studies

**Underpinning Knowledge Evidence Record**

Y/601/6119 Knowledge of Working with Plastic Materials and Components

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| **Learners Name** |  |
| **SEG Awards Registration Number** |  |
| **Centre Name** |  |
| **Assessor 1 Name**  |  |
| **Assessor 2 Name**  |  |

**DECLARATION OF AUTHENTICITY**

This declaration must be completed and signed by the learner and countersigned by the tutor / assessor and covers all evidence submitted for moderation.

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| Learner Name |  |
| Unique Learner Number (ULN) |  | SEGLearner Reg. ID |  |
| Qualification Title |  |
| Centre Name |  |

# Learner statement of authenticity

**Before signing please read the guidance below**.

I confirm, that the attached assignment / portfolio is all my own work[[1]](#footnote-1) and does not include any work completed by anyone other than myself. I have completed the assignment / portfolio in accordance with SEG Awards’ instructions and within the time limits set by my centre.

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| Signature |  | Date |  |

# Centre confirmation of authenticity

On behalf of …………………………………….(insert centre name), I confirm that the above mentioned learner, to the best of my knowledge, is the sole author of the completed assignment / portfolio attached, and the assessments have been completed under the required conditions.

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| Signed |  | Date |  |
| Name |  |
| Title |  |

**Guidance for Learners**

You have been asked to sign this Declaration of Authenticity and place it at the front of your portfolio or course work assessment. It confirms that the work you have submitted for assessment is your own and that you have not copied it from someone else or allowed another learner to copy it from you.

When preparing any course work it is good practice to undertake research using information from published sources. If you quote directly from these sources then this must be indicated in your work by using quotation marks and referencing the document from which the quotation was taken. You must then comment in your own words on any ideas expressed.

Assessors, internal verifiers and SEG Awards’ external moderators and verifiers are subject specialists who can spot the use of published materials that may be passed as your own words or ideas.

If you do copy words from a published source and do not indicate their reference you will be committing plagiarism. This is considered a form of cheating and may result in your assessment being declared void.

**Contents**

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| **Task No** | **Title** | **Assessment Criteria** |
| 1 | Identifying plastic materials | 1.1, 1.2, 1.3, 1.4, 1.5 |
| 2 | Preparing plastic surfaces | 2.1, 2.2 |
| 3 | Foundation material | 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.6 |
| 4 | Masking | 3.9, 3.10, 3.11 |

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| **Task 1 – Identifying plastic materials** | **Assessment Criteria 1.1, 1.2, 1.3, 1.4, 1.5** |

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| **In the table below identify 2 types of plastic commonly found in vehicle body manufacturing and describe their properties and characteristics** |
| **Plastic Identification Code** | **Plastic Name** | **Properties and Characteristics** |
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| **In the table below describe how you would identify the following substrates and the properties of that substrate**  |
| **Substrate** | **Method used to determine the substrate** | **Properties of Substrate** |
| **Plastics** |  |  |
| **OE finish** |  |  |
| **2K paint** |  |  |
| **1K paint** |  |  |
| **Clear over base** |  |  |
| **Polyester fillers** |  |  |

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| **In the table below identify the correct preparation process and suitable foundation materials for the list of given substrates** |
| **Substrate** | **Selection of Preparation Process** | **Suitable Foundation Materials** |
| **Rigid plastic** |  |  |
| **Flexible plastic** |  |  |
| **Textured plastic** |  |  |
| **New plastic** |  |  |
| **Repaired plastic** |  |  |
| **Pre-primed plastic** |  |  |

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| **Task 2 – Preparing plastic surfaces** | **Assessment Criteria 2.1, 2.2** |

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| **In the table below describe the selection and application method of cleaning agents prior to applying foundation materials to 2 different plastics** |
| **Plastic Code** | **Reason for selection of cleaner** | **Describe the appropriate application method** |
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| **Task 3 – Foundation material** | **Assessment Criteria 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.6** |

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| **Select 2 different foundation materials stating their mixing ratios and correct viscosity measurement** |
| **Foundation Material** | **Mixing Ratio By Volume**  | **Mixing Ratio By Weight** | **Viscosity Measurement** |
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| **Describe the importance of viscosity** |
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| **Describe the effects that the following viscosity measurements would have on the surface finish**  |
| **Too high** |  |
| **Too low** |  |

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| **In the table below select 2 different types of foundation materials and describe their properties** |
| **Foundation Material** | **Describe the properties of the foundation materials** |
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| **In the table below select 2 different types of foundation materials and describe their drying and curing recommendations** |
| **Foundation Material** | **Describe the curing and drying recommendations for the foundation materials**  |
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| **Using sources of technical information describe how to apply 2 different foundation materials to plastic** |
| **Foundation Material** | **Application Technique** |
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| **Using a manufacturers’ data sheet complete the table below defining the following in relation to foundation materials**  |
| **Product Name:** |  |
| **Sources of Information**  | **Manufacturers****Data** | **Interpret/Define Information** |
| **Flash off time** |  |  |
| **Mixing ratios** |  |  |
| **Build film thickness** |  |  |
| **Air pressure**  |  |  |
| **Viscosity** |  |  |
| **Spray gun setup** |  |  |

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| **Describe how to avoid application defects in foundation materials** |
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| **Task 4 – Masking** | **Assessment Criteria 3.9, 3.10, 3.11** |

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| **Outline and describe the masking materials, techniques and common occurring faults from 5 of the list below** |
| **Component** | **Materials used**  | **Techniques** **(including minimising waste)** | **Common faults caused by careless masking** |
| **Seat** |  |  |  |
| **Glass/****windscreen** |  |  |  |
| **Wheels** |  |  |  |
| **Lights** |  |  |  |
| **Handles** |  |  |  |
| **Mirrors** |  |  |  |
| **Fairings** |  |  |  |
| **Handlebars** |  |  |  |
| **Wing** |  |  |  |
| **Door aperture** |  |  |  |

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| **Describe the requirements for protecting the vehicle and contents from damage before, during and after preparing and applying foundation materials to plastics** |
| **Before preparing and applying foundation materials** | **During preparing and applying foundation materials** | **After preparing and applying foundation materials** |
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1. Unless otherwise stated e.g. for some entry level qualifications, learners can work together but should identify sections which are their own work. [↑](#footnote-ref-1)