



COMPETENCY STANDARD FOR Automotive Body Painting

Level: 2

(Light Engineering Sector)

Competency Standard Code: CS-LE-ABP-L2-EN-V1



**National Skills Development Authority
Prime Minister's Office
Government of the People's Republic of Bangladesh**

Table of Contents

Copyright	5
Introduction	6
Overview	7
Level Descriptors of NSQF (BNQF 1-6)	8
List of Abbreviations	9
Course Structure	13
Units & Elements at a Glance:	14
Generic Competencies (55 Hours)	14
Occupation Specific Competencies (270 Hours).....	14
Generic Competencies	16
GU003L2V1: Carryout Workplace Interaction	17
GU008L2V1: Work in a Team Environment.....	20
GU012L2V1: Communicate in the Workplace	23
Occupation Specific Competencies	27
OUABP001L2V1: Apply 2K Epoxy Primer	28
OUABP002L2V1: Apply polyester putty and 2K Surfacer	32
OUABP003L2V1: Perform color mixing and matching.....	37
OUABP004L2V1: Perform Polishing.....	43
Development of Competency Standard.....	48
Validation of Competency Standard by Standard and Curriculum Validation Committee (SCVC)	50

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This Competency Standard for Automotive Body Painting is a document for the development of curricula, teaching and learning materials, and assessment tools. It also serves as the document for providing training consistent with the requirements of industry in order to meet the qualification of individuals who graduated through the established standard via competency-based assessment for a relevant job.

This document has been developed by NSDA in association with Light Engineering Sector, industry representatives, academia, related specialist, trainer and related employee.

Public and private institutions may use the information contained in this standard for activities benefitting Bangladesh.

Introduction

The NSDA aims to enhance an individual's employability by certifying completeness with skills. NSDA works to expand the skilling capacity of identified public and private training providers qualitatively and quantitatively. It also aims to establish and operationalize a responsive skill ecosystem and delivery mechanism through a combination of Well-defined set of mechanisms and necessary technical supports.

Key priority economic growth sectors identified by the government have been targeted by NSDA to improve current job skills along with existing workforce to ensure required skills to industry standards. Training providers are encouraged and supported to work with industry to address identified skills and knowledge to enable industry growth and increased employment through the provision of market responsive inclusive skills training program. "**Automotive Body Painting** " is selected as one of the priority occupations of **Light Engineering** Sector. This standard is developed to adopt a demand driven approach to training with effective inputs from Industry Skills Councils , employer associations and employers.

Generally, a competency standard informs curriculum, learning materials, assessment and certification of trainees enrolled in Skills training. Trainees who successfully pass the assessment will receive a qualification in the National Skills Qualification Framework (NSQF) and will be listed on the NSDA's online portal.

This competency standard is developed to improve skills and knowledge in accordance with the job roles, duties and tasks of the occupation and ensure that the required skills and knowledge are aligned to industry requirements. A series of stakeholder consultations, workshops were held to develop this document.

The document also details the format, sequencing, wording and layout of the Competency Standard for an occupation which is comprised of Units of Competence and its corresponding Elements.

Overview

A **competency standard** is a written specification of the knowledge, skills and attitudes required for the performance of an occupation, trade or job corresponding to the industry standard of performance required in the workplace.

The purpose of a competency standards is to:

- provide a consistent and reliable set of components for training, recognising and assessing people's skills, and may also have optional support materials
- enable industry recognised qualifications to be awarded through direct assessment of workplace competencies
- encourage the development and delivery of flexible training which suits individual and industry requirements
- encourage learning and assessment in a work-related environment which leads to verifiable workplace outcomes

Competency standards are developed by a working group comprised of representative from NSDA, Key Institutions, ISC, and industry experts to identify the competencies required of an occupation in **light Engineering sector**.

Competency standards describe the knowledge, skills and attitude needed to perform effectively in the workplace. CS acknowledge that people can achieve technical and vocational competency in many ways by emphasizing what the learner can do, not how or where they learned to do it.

With competency standards, training and assessment may be conducted at the workplace or at training institute or any combination of these.

Competency standards consist of a number of units of competency. A unit of competency describes a distinct work activity that would normally be undertaken by one person in accordance with industry standards.

Units of competency are documented in a standard format that comprises of:

- unit title
- nominal duration
- unit code
- unit descriptor
- elements and performance criteria
- variables and range statement
- curricular content guide
- assessment evidence guides

Together, all the parts of a unit of competency:

- describe a work activity
- guide the assessor to determine whether the candidate is competent or not yet competent

The ensuing sections of this document comprise of a description of the relevant occupation, trade or job with all the key components of a unit of competency, including:

- a chart with an overview of all Units of Competency for the relevant occupation, trade or job including the Unit Codes and the Unit of Competency titles and corresponding Elements
- the Competency Standard that includes the Unit of Competency, Unit Descriptor, Elements and Performance Criteria, Range of Variables, Curricular Content Guide and Assessment Evidence Guide.

Competency Standards for National Skill Certificate – 2 in Automotive Body Painting in Light Engineering Sector

Level Descriptors of NSQF (BNQF 1-6)

Level & Job classification	Knowledge Domain	Skills Domain	Responsibility Domain
6-Mid-Level Manager/ Sub Assistant Engineer	Comprehensive actual and theoretical knowledge within a specific work or study area with an awareness of the validity and limits of that knowledge, able to analyse, compare, relate and evaluate.	Specialised and wider range of cognitive and practical skills required to provide leadership in the development of creative solutions to defined problems. Communicate professional issues and solutions to the team and to external partners/users.	Work under broad guidance and self-motivation to execute strategic and operational plan/s. Lead lower-level management. Diagnose and resolve problems within and among work groups.
5-Supervisor	Broad knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to scrutinize and break information into parts by identifying motives or causes.	Broad range of cognitive and practical skills required to generate solutions to specific problems in one or more work or study areas. Communicate practice-related problems and possible solutions to external partners.	Work under guidance of management and self-direction to resolve specific issues. Lead and take responsibility for the work and actions of group/team members. Bridge between management.
4-Highly Skilled Worker	Broader knowledge of the underlying, concepts, principles, and processes in a specific work or study area, able to solve problems to new situations by comparing and applying acquired knowledge.	A range of cognitive and practical skills required to accomplish tasks and solve problems by selecting and applying the full range of methods, tools, materials and information. Communicate using technical terminology and IT technology with partners and users as per workplace requirements.	Work under minimal supervision in specific contexts in response to workplace requirements. Resolve technical issues in response to workplace requirements and lead/guide a team/ group.
3-Skilled Worker	Moderately broad knowledge in a specific work or study area, able to perceive ideas and abstract from drawing and design according to workplace requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out tasks and to solve routine problems using simple rules and tools. Communicate with his team and limited external partners upholding the values, nature and culture of the workplace	Work or study under supervision with considerable autonomy. Participate in teams and responsible for group coordination.
2-Semi Skilled Worker	Basic understanding of underpinning knowledge in a specific work or study area, able to interpret and apply common occupational terms and instructions.	Skills required to carry out simple tasks, communicate with his team in the workplace presenting and discussing results of his work with required clarity.	Work or study under supervision in a structured context with limited scope of manipulation
1 –Basic Skilled Worker	Elementary understanding of ability to interpret the underpinning knowledge in a specific study area, able to interpret common occupational terms and instructions.	Specific Basic skills required to carry out simple tasks. Interpret occupational terms and present the results of own work within guided work environment/ under supervision.	Work under direct supervision in a structured context with limited range of responsibilities.

List of Abbreviations

CS	- Competency Standard
ISC	- Industry Skills Council
FPS	- Foot, Pound, Second
LEISC	- Light Engineering Industry Skills Councils
NSDA	- National Skills Development Authority
MKS	- Meter, Kilogram, Second
NSQF	- National Qualifications Framework
OSH	- Occupational Safety and Health
PPE	- Personal Protective Equipment
SCVC	- Standards and Curriculum Validation Committee
STP	- Skills Training Provider
SOP	- Standard Operating Procedure
UoC	- Unit of Competency

Approval of Competency Standard

Approved by
23rd Authority Meeting of NSDA Held on 26.12.2022

Saniul
26.12.22

Md. Saniul Ferdous
Deputy Director (Admin)
National Skills Development Authority
Prime Minister's Office

Deputy Director (Admin)
and
Officer of Secretarial Duties for Authority Meeting
National Skills Development Authority

**National Competency Standards for National Skill Certificate, Level -2 in
Automotive Body Painting**

Course Structure

SL	Unit Code and Title		UoC Level	Nominal Hours
Generic Competencies				55
1.	GU003L2V1	Carry out workplace interaction	2	15
2.	GU008L2V1	Work in the team environment	2	20
3.	GU012L2V1	Communicate in the Workplace	2	20
Occupation Specific Competencies				270
4.	OUABP001L2V1	Apply 2K Epoxy primer	2	50
5.	OUABP002L2V1	Apply polyester putty and 2K Surfacer	2	80
6.	OUABP003L2V1	Perform color mixing and matching	2	80
7.	OUABP004L2V1	Perform Polishing	2	60
Total Nominal Learning Hours				325

Units & Elements at a Glance:

Generic Competencies (55 Hours)

Code	Unit of Competency	Elements of Competency	Duration (Hours)
GU003L2V1	Carry out workplace interaction	<ol style="list-style-type: none"> 1. Interpret workplace communication and etiquette 2. Read and understand workplace documents 3. Participate in workplace meetings and discussions 4. Practice professional ethics at workplace 	15
GU008L2V1	Work in the team environment	<ol style="list-style-type: none"> 1. Define team role and scope 2. Identify individual role and responsibility 3. Participate in team discussions 4. Work as a team member 	20
GU012L2V1	Communicate in the Workplace	<ol style="list-style-type: none"> 1. Receive verbal instructions 2. Interpret verbal and written information/instruction 3. Convey instructions using verbal and written forms of communication 4. Complete written documentation 5. Participate in workplace meetings and discussions 	20
Total Hour			55

Occupation Specific Competencies (270 Hours)

Code	Unit of Competency	Elements of Competency	Hours
OUABP001L2V1	Apply 2K Epoxy primer	<ol style="list-style-type: none"> 1. Prepare for work 2. Mix primer and hardener 3. Spray Epoxy primer 4. Maintain workplace cleanliness and store tools 	50

OUABP002L2V1	Apply polyester putty and 2K Surfacer	<ol style="list-style-type: none"> 1. Prepare for work 2. Apply putty on complex surface 3. Apply guide coat and putty on complex surface 4. Apply surfacer 5. Perform Sanding 6. Maintain workplace cleanliness and store tools 	80
OUABP003L2V1	Perform color mixing and matching	<ol style="list-style-type: none"> 1. Prepare for work 2. Determine Mixing ratio 3. Compute volume of paint needed 4. Mix paint 5. Apply paint to test panel 6. Check and match result of spray out panel 7. Adjust and prepare final color mixture 8. Clean and store tools 	80
OUABP004L2V1	Perform Polishing	<ol style="list-style-type: none"> 1. Prepare for work 2. Assess painted surface 3. Prepare surface for polishing 4. Polish painted surface 5. Clean the polished surface 6. Install body accessories 7. Clean and store tools 	60
Total Hour			270

Generic Competencies

Unit Code and Title	GU003L2V1: Carryout Workplace Interaction
Unit Descriptor	<p>This unit covers the knowledge, skills and attitude required to carry out workplace interaction.</p> <p>It specifically includes interpreting workplace communication and etiquette, reading and understanding workplace documents, participating in workplace meetings and discussions and practicing professional ethics at workplace.</p>
Nominal Hours	15 Hours
Elements of Competency	Performance Criteria <u>Bold underlined</u> terms are elaborated in the Range of Variables
1. Interpret workplace communication and etiquette	<p>1.1 Workplace code of conducts are interpreted as per organizational guidelines</p> <p>1.2 Appropriate lines of communication are maintained with supervisors and colleagues</p> <p>1.3 Workplace interactions are conducted in a <u>courteous manner</u> to gather and convey information</p> <p>1.4 Questions about routine <u>workplace procedures and matters</u> are asked and responded as required</p>
2. Read and understand workplace documents	<p>2.1 Workplace documents are interpreted as per standard</p> <p>2.2 Assistance is taken to aid comprehension when required from peers / supervisors</p> <p>2.3 Visual information / symbols / signage's are understood and followed</p> <p>2.4 Specific and relevant information are accessed from <u>appropriate sources</u></p> <p>2.5 Appropriate medium is used to transfer information and ideas</p>
3. Participate in workplace meetings and discussions	<p>3.1 Team meetings are attended on time and meeting procedures and etiquette are followed</p> <p>3.2 Own opinions are expressed and others opinions are listened without interruption</p> <p>3.3 Inputs are provided consistent with meeting purpose and meeting outcomes are implemented</p>

4. Practice professional ethics at workplace	<p>4.1 Responsibilities as a team member are demonstrated and kept promises and commitments made to others</p> <p>4.2 Tasks are performed in accordance with workplace procedures</p> <p>4.3 Confidentiality is respected and maintained</p> <p>4.4 Situations and actions considered inappropriate or which present a conflict of interest are avoided</p>
Range of Variables	
Variable	Range (may include but not limited to):
1. Courteous manner	<p>1.1 Effective questioning</p> <p>1.2 Active listening</p> <p>1.3 Speaking skills</p>
2. Workplace procedures and matters	<p>2.1 Notes</p> <p>2.2 Agenda</p> <p>2.3 Simple reports</p> <p> 2.3.1 Progress report</p> <p> 2.3.2 Incident report</p> <p>2.4 Job sheets</p> <p>2.5 Operational manuals</p> <p>2.6 Brochures and promotional material</p> <p>2.7 Visual and graphic materials</p> <p>2.8 Standards</p> <p>2.9 OSH information</p> <p>2.10 Signs</p>
3. Appropriate sources	<p>3.1 HR Department</p> <p>3.2 Managers</p> <p>3.3 Supervisors</p>
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency.	
1. Critical aspects of competency	<p>1.1 Maintained workplace communication and etiquette</p> <p>1.2 Followed workplace instructions and symbols</p> <p>1.3 Followed team meeting and etiquette</p>
2. Underpinning knowledge	<p>2.1 Workplace communication and etiquette</p> <p>2.2 Workplace documents, signs and symbols</p> <p>2.3 Meeting procedure and etiquette</p>
3. Underpinning skills	<p>3.1 Maintaining workplace communication and etiquette</p> <p>3.2 Following workplace instructions and symbols</p> <p>3.3 Following team meeting and etiquette</p>

4. Underpinning attitude	4.1 Commitment to occupational health and safety 4.2 Promptness in carrying out activities 4.3 Sincere and honest to duties 4.4 Environmental concerns 4.5 Eagerness to learn 4.6 Tidiness and timeliness 4.7 Respect for rights of peers and seniors in workplace 4.8 Communication with peers and seniors in workplace
5. Resource implications	The following resources must be provided: 5.1 Work place Procedure 5.2 Materials relevant to the proposed activity 5.3 All tools, equipment, material and documentation required. 5.4 Relevant specifications or work instructions
6. Methods of assessment	Methods of assessment may include but not limited to: 6.1 Written test 6.2 Demonstration 6.3 Oral questioning 6.4 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in a training center or in an actual or simulated work place after Completion of the training module 7.2 Assessment should be done by NSDA certified assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	GU008L2V1: Work in a Team Environment
Unit Descriptor	This unit covers the knowledge, skills and attitudes (KSA) required in working in a team environment. It includes defining team role and scope, identifying individual role and responsibility. Participating in team discussions and working as a team member.
Nominal Hours	20 Hours
Elements of Competency	Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables
1. Define team role and scope	1.1. Role and objectives of the team are defined 1.2. Team structure, responsibilities and reporting relations are identified from team discussions and other external sources
2. Identify individual role and responsibility	2.1 Individual roles and responsibilities of <u>team members</u> are identified 2.2 Reporting relationships among team members are defined and clarified 2.3 Reporting relationships external to the team are defined and clarified
3. Participate in team discussions	3.1 Ideas related to team plans are contributed 3.2 Recommendations for improving team work are put forward
4. Work as a team member	4.1. Effective forms of communication are used to interact with team members 4.2. Communication channels are followed 4.3. OHS practices are followed
Range of Variables	
Variables	Range (may include but not limited to):
1. Sources of information	1.1 Standard Operating Procedures 1.2 Job Description 1.3 Operations Manual 1.4 Organizational Structure
2. Team Members	2.1 Coach/mentor 2.2 Supervisor/Manager 2.3 Peers/Colleagues 2.4 Employee representative
3. Workplace context	3.1 National Laws and Statutes 3.2 Standard Operating Procedures 3.3 Workplace Rules and Regulations

Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent, recent and meet all requirements of current version of the Unit of Competency	
1. Critical aspects of competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 demonstrated knowledge in working in a team environment. 1.2 satisfied the requirements mentioned in the Performance Criteria and Range of Variables
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Team Structure, Role and Responsibility 2.2 Individual Members' Roles and Responsibilities 2.3 Communication Flow and Reporting Structures 2.4 Team Planning 2.5 Interpersonal Communication Skills 2.6 Team Meeting Procedures 2.7 OHS Practices
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Identifying the role and responsibility of the team 3.2 Identifying roles and responsibilities of individual members 3.3 Participating in team discussions 3.4 Working as a team member
4. Underpinning Attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace 4.6 Communication with peers and seniors in Workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1 Pens 5.2 Telephone 5.3 Computer 5.4 Writing materials 5.5 Online communication
6. Methods of assessment	<p>Methods of assessment may include but not limited to:</p> <ul style="list-style-type: none"> 6.1. Workplace observation 6.2. Demonstration 6.3. Oral questioning 6.4. Written test 6.5. Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment center 7.2 Assessment should be done by a NSDA certified/nominated assessor

Accreditation Requirements

Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Unit code and Title	GU012L2V1: Communicate in the Workplace
Nominal Hours	20 Hours
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes (KSAs) required to communicate in the workplace.</p> <p>It includes the use of verbal and written forms of communication to receive, interpret, convey, and document information/ instruction using appropriate communication equipment.</p>
Elements of Competency	<p>Performance Criteria <u>Bold & Underlined</u> terms are elaborated in the Range of Variables Training Components</p>
1. Receive verbal instructions.	<p>1.1 Instructions are accessed and interpreted</p> <p>1.2 Questions are asked to clarify understanding or gain more information</p> <p>1.3 Information/instruction is recorded</p>
2. Interpret verbal and written information/ instruction	<p>2.1 <u>Written instructions</u> are interpreted</p> <p>2.2 Work <u>signage's</u> are properly responded</p> <p>2.3 Routine written instructions are followed in sequence</p> <p>2.4 Feedback is given to workplace supervisor</p>
3. Convey instructions using verbal and written forms of communication	<p>3.1 Relevant <u>communication</u> methods are used to transmit instructions</p> <p>3.2 Appropriate non-verbal communication is used</p> <p>3.3 Channels of communication are identified and followed</p> <p>3.4 Communication <u>tools and equipment</u> are operated and faults are identified and reported</p> <p>3.5 Information is conveyed using appropriate <u>forms</u></p>
4. Complete written documentation	<p>4.1 All required <u>documentation</u> is completed</p> <p>4.2 Workplace data are recorded</p> <p>4.3 Written information/instruction is passed to personnel</p>
5. Participate in work place meetings and discussions	<p>5.1 Meetings are attended regularly and on time</p> <p>5.2 Meeting inputs are consistent with the meeting purpose and established protocols</p> <p>5.3 Opinions are expressed without interruption</p> <p>5.4 Meeting outputs are processed and implemented</p>
Range of Variables	
Variable	Range (may include but not limited to):

1. Written instructions	<ul style="list-style-type: none"> 1.1 Supervisor's/Manager's Instructions 1.2 Memoranda 1.3 Rules and Regulations 1.4 Signage 1.5 Approved Work Plan 1.6 External communications
2. Workplace guidelines	<ul style="list-style-type: none"> 2.1 Labor Policies and Guidelines 2.2 Written Instructions 2.3 Operations Manual 2.4 Organizational Manuals 2.5 Quality Assurance Handbook
3. Signage	<ul style="list-style-type: none"> 3.1 On-site direction signs 3.2 Common site warnings 3.3 Location signs 3.4 Traffic signs
4. Communication	<ul style="list-style-type: none"> 4.1 Verbal instructions 4.2 Written instructions 4.3 Online communication
5. Tools and machinery	<ul style="list-style-type: none"> 5.1 Telephone 5.2 Mobile Phone 5.3 Fax machines 5.4 Two-way radio 5.5 Computers 5.6 Forms 5.7 Memo 5.8 Two-way radio
6. Forms	<ul style="list-style-type: none"> 6.1 Memorandum 6.2 Requisitioning Form 6.3 Personnel Form 6.4 Safety Report Form
7. Documentation	<ul style="list-style-type: none"> 7.1 Reports (Monthly, Quarterly, Half-Yearly, Annual) 7.2 Plans (Strategic Plan, Operational Plan, Monthly Schedule) 7.3 Monitoring and Evaluation Report 7.4 Minutes of Meetings
<p>Evidence Guide</p> <p>The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency</p>	
1. Critical Aspects of Competency	<p>Assessment required evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 demonstrated knowledge of workplace procedures in receiving, interpreting and conveying verbal & written communication.

	1.2 satisfied the requirements mentioned in the Performance Criteria and Range of Variables.
2. Underpinning Knowledge	2.1 Workplace Communication Policies, Standards and Procedures 2.2 Verbal and Non-verbal communication 2.3 Modes of Communication 2.4 Communication Equipment: Types, Uses and Faults 2.5 Channels of Communication
3. Underpinning Skills	3.1 Receiving verbal instructions. 3.2 Interpreting verbal and written information/ instruction 3.3 Conveying instructions using verbal and written forms of communication 3.4 Completing written documentation 3.5 Participating in workplace meetings and discussions
4. Underpinning Attitude	4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace 4.6 Communication with peers and seniors in workplace
5. Resource Implications	The following resources must be provided: 5.1 Pens 5.2 Telephone 5.3 Computer 5.4 Writing materials 5.5 Online communication
6. Methods of Assessment	Methods of assessment may include but not limited to: 6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
7. Context of Assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor.

Accreditation Requirements

Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of any NSQF qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.

Occupation Specific Competencies

Unit Code and Title	OUABP001L2V1: Apply 2K Epoxy Primer
Unit Descriptor	This unit covers the knowledge, skills and attitude required in Applying 2K Epoxy primer It includes the tasks of preparing for work with following OSH practices, mixing primer and hardener, spraying epoxy primer, cleaning spray gun, maintaining workplace cleanliness and storing tools.
Nominal Hours	50 Hours
Elements of Competency	Performance Criteria Bold and Underlined terms are elaborated in the Range of Variables.
1. Prepare for work	<p>1.1 Safe work practices are observed and Personal Protective Equipment (PPE) worn as required for the work performed.</p> <p>1.2 Necessary tools and equipment are identified and collected in accordance with work requirement.</p> <p>1.3 Necessary materials with safety data sheet (MSDS) are collected in accordance with work requirement.</p>
2. Mix primer and hardener	<p>2.1 Mixing container (Graduated container/bicker) is cleaned and freed from dust to avoid contamination</p> <p>2.2 Epoxy primer is stirred as required before and after mixing</p> <p>2.3 2K Epoxy Primer mixed according to paint manufacturer specification</p>
3. Spray Epoxy primer	<p>3.1 Cleaning is performed using pressurized air with air dryer to remove sanded particles</p> <p>3.2 Sanding of surface is performed as per procedures</p> <p>3.3 Degreasing performed as per company standard operating procedure</p> <p>3.4 Etch/wash primer is applied for aluminum and galvanized metal surface</p> <p>3.5 Spraying epoxy primer is applied maintaining air pressure and spraying distance as per manufacturer Safety Data Sheet (MSDS)</p> <p>3.6 Flash off time is observed as per paint manufacturer specification</p> <p>3.7 Drying time is observed as per paint manufacturer specification</p>
4. Clean the spray gun	<p>5.1 Paint cup is cleaned with thinner before and after use</p> <p>5.2 Paint passage is cleaned with back-flush technique</p>

	4.1 Nozzle cap is removed and fluid tip is cleaned
5. Maintain workplace cleanliness and store tools	4.2 Workplace is cleaned as per standard procedure 4.3 Waste materials are disposed following environment compliance 4.4 Tools are cleaned and stored safely in appropriate location
Range of Variable	
VARIABLE	RANGE (may include but not limited to):
1. Personal protective equipment	1.1 Gloves - cotton and solvent resistant 1.2 Safety shoes or boots 1.3 Dust mask, gas mask or respirator or particle mask or full-face mask 1.4 Antistatic overall Apron 1.5 Eye spectacle or goggles
2. Equipment, tools, and materials	Tools include: 2.1 Mixing cup 2.2 Measuring scale 2.3 Strainer Equipment 2.1 Sander Dual action or Orbital with dust extractor for applying surfacer 2.2 Air compressor 2.3 Spray gun 2.4 Air lines and accessories 2.5 Air dryer/filter 2.6 Infrared lamp 2.7 DFT gage 2.8 Air pressure gage 2.9 Weighing scale 2.10 Painting booth
3. Material	3.1 2K epoxy primer 3.2 Etch primer/ Wash primer 3.3 Epoxy hardener/Curing agent 3.4 Thinner 3.5 Degreasing compound 3.6 Sand paper (P120~240)
4. M. Surface	4.1 Metal 4.2 Aluminum 4.3 galvanized

	4.4 Mild Steel
5. Waste materials	5.1 Used water 5.2 Paint scrapings 5.3 Used consumables 5.4 Paint Containers
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment requires evidence that the candidate: 1.1 Mixed 2k epoxy primer as per procedure 1.2 Applied 2k epoxy primer on flat and complex surfaces 1.3 Applied etch/wash primer 1.4 Observed flash off time 1.5 Observed drying time 1.6 Used proper grit number of sand paper
2. Underpinning knowledge and attitudes	2.1 Necessary cleaning and degreasing agents 2.2 Types of primer 2.3 Tools and Equipment used in primer application 2.4 Procedures in applying primer 2.5 Procedure in mixing 2k epoxy primer 2.6 Benefit of using 2k epoxy primer 2.7 Functions and use of air dryer in painting 2.8 Spray gun 2.9 Spraying distance 2.10 Flash off time 2.11 Drying time 2.12 Importance of Air pressure for applying primer
3. Underpinning skills	3.1 Using relevant tools, equipment and consumable materials 3.2 Cleaning bare metal, plastic, fiberglass surfaces for epoxy primer 3.3 application 3.4 Applying epoxy primer 3.5 Applying epoxy primer 3.6 to a variety of surfaces 3.7 Mixing epoxy primer and hardener 3.8 Estimating volume of quantity of hardener and epoxy primer 3.9 Communication skills in dealing with customers, superiors or peers 3.10 Cleaning work area, tools and equipment and disposing waste materials and other residues

4. Underpinning attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	<ul style="list-style-type: none"> 5.1 Workplace 5.2 Tools, equipment and facilities appropriate to processes or activity. 5.3 Stand by firefighting equipment 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant drawings, manuals, codes, standards and reference material.
6. Methods of assessment	<ul style="list-style-type: none"> 6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test 6.5 Portfolio
7. Context of assessment	<ul style="list-style-type: none"> 7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OUABP002L2V1: Apply polyester putty and 2K Surfacer
Unit Descriptor	This unit covers the knowledge, skills and attitude required in applying polyester putty and 2k surfacer It includes the tasks of preparing for work with following OSH practices, applying putty on complex surface, applying guide coat and putty on complex surface, applying surfacer, performing sanding, maintaining workplace cleanliness and store tools
Nominal Hours	80 Hours
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
1. Prepare for work	1.1 Safe work practices are observed and <u>Personal Protective Equipment (PPE)</u> worn as required for the work performed. 1.2 Necessary <u>tools and equipment</u> are identified and collected in accordance with work requirement. 1.3 Necessary <u>materials</u> with Safety Data Sheet (SDS) are collected in accordance with work requirement.
2. Apply putty on complex surface	2.1 Putty is stirred as required before and after mixing 2.2 <u>Putty</u> is mixed according to paint manufacturer specifications and <u>company standard operating procedures</u> 2.3 Putty is applied on surfaces gradually to fill in dents and damages 2.4 Putty is dried as per manufacturer specifications 2.5 Sanding of putty area is performed as per procedures 2.6 Sanded area is assessed using <u>3 methods</u> of assessing surfaces.
3. Apply guide coat and putty on complex surface	3.1 Recommended technique in applying putty on complex surfaces is restored complex to original form 3.2 Sanding technique is applied to restore complex surface to original form 3.3 Sanded area is assessed using <u>3 methods</u> of assessing surfaces.
4. Apply Surfacer	4.1 Cleaning is performed using pressurized air with air pressure gun to remove sanded particles 4.2 Degreasing is performed as per company standard operating procedure 4.3 Spray gun is cleaned as per guidelines

	<p>4.4 2K Surfer is stirred as required before and after mixing with hardener and thinner</p> <p>4.5 2K Epoxy primer mixed according to paint manufacturer specification</p> <p>4.6 epoxy primer is sprayed maintaining air pressure and spraying distance as per paint manufacturerspecification</p> <p>4.7 Drying and Flash off time is observed as per paint manufacturerspecification</p>
5. Perform Sanding	<p>5.1 Sanding of epoxy primer applied area is performed as per procedures</p> <p>5.2 Sanded area is assessed using visual and touch, methods</p> <p>5.3 Dual action orbital sander is used as per manufacturer operation instruction</p>
6. Maintain workplace cleanliness and store tools	<p>6.1 Workplace is cleaned as per standard procedure</p> <p>6.2 Waste materials are disposed as per workplace procedure</p> <p>6.3 Tools are cleaned and stored safely in appropriate location</p>
Range of Variables	
VARIABLE	RANGE (may include but not limited to):
1. Personal protective equipment	<p>1.1 Gloves - cotton and solvent resistant</p> <p>1.2 Safety shoes or boots</p> <p>1.3 Dust mask, gas mask or respirator or particle mask or full-face mask</p> <p>1.4 Antistatic overall Apron</p> <p>1.5 Eye spectacle or goggles</p>
2. Tools	<p>4.1 Spatula</p> <p>4.2 Putty knife</p>
3. Equipment	<p>3.1 Sander dual action with dust extractor</p> <p>3.2 Air compressor</p> <p>3.3 Spray gun</p> <p>3.4 Air lines and accessories</p> <p>3.5 Air dryer/filter</p>

4. Materials	<ul style="list-style-type: none"> 4.1 Sand paper 4.2 Degreaser 4.3 Primer 4.4 Thinner 4.5 surfacer 4.6 Hardener 4.7 Tack cloth 4.8 Masking materials 4.9 Adhesion promoter for plastic 4.10 Antistatic cleaner for plastic 4.11 Plastic putty 4.12 Flexible additives for plastic
5. Surface	<ul style="list-style-type: none"> 3.1 Metal 3.2 Aluminum 3.3 Plastic 3.4 Fiberglass 3.5 Carbon fiber
6. Waste materials	<ul style="list-style-type: none"> 4.1 Used water 4.2 Paint scrapings 4.3 Used consumables 4.4 Paint Containers
7. Putty	<ul style="list-style-type: none"> 1.1 Nitro Cellulose (NC) putty or touch up putty 1.2 Polyester putty
8. Company standard operating procedures	<ul style="list-style-type: none"> 2.1 Job order 2.2 Equipment and Materials request slip 2.3 Use of Personal Protective Equipment (PPE) 2.4 Observance of Occupational Health and Safety
9. 3 Methods of assessing surfaces	<ul style="list-style-type: none"> 3.1 Visual inspection 3.2 By touch of hand 3.3 Using thickness gage
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <ul style="list-style-type: none"> 1.1 Stirred putty as required before and after mixing 1.2 Mixed epoxy primer and putty as per procedure 1.3 Applied putty on flat and complex surfaces 1.4 Applied epoxy primer 1.5 Sanded the putty to conform to the original shape 1.6 Used proper grit number of sand paper

<p>2. Underpinning knowledge and attitudes</p>	<p>2.1 Familiarization of autobody surface area and panel surfaces</p> <p>2.2 Necessary cleaning and degreasing agents</p> <p>2.3 Types of Putty</p> <p>2.4 Tools and Equipment used in putty application</p> <p>2.5 Procedures in applying putty filler and epoxy primer</p> <p>2.6 Procedure in mixing putty filler and epoxy primer</p> <p>2.7 Characteristics of putty fillers</p> <p>2.8 Kinds of surface areas in auto body panel</p> <p>2.9 surface preparation for refinishing</p> <p>2.10 Correct operating procedures of relevant equipment for surface preparation</p> <p>2.11 Personal safety requirements</p> <p>2.12 Use of air pressure gun</p> <p>2.13 Use of Spray gun</p> <p>2.14 2K Epoxy primer</p> <p>2.15 spraying distance</p> <p>2.16 Flash off time</p> <p>2.17 Drying time</p>
<p>3. Underpinning skills</p>	<p>3.1 Using relevant tools, equipment and consumable materials</p> <p>3.2 Cleaning bare metal, plastic, fiberglass surfaces for putty and epoxy primer application</p> <p>3.3 Applying techniques of epoxy primer</p> <p>3.4 Applying putty filler and epoxy primer to a variety of surfaces</p> <p>3.5 Mixing putty and epoxy primer</p> <p>3.6 Estimating volume quantity of putty to be used and area for putty application</p> <p>3.7 Communication skills in dealing with customers, superiors or peers</p> <p>3.8 Cleaning work area, tools and equipment and disposing waste materials and other residues</p>
<p>4. Underpinning attitudes</p>	<p>4.1 Commitment to occupational health and safety</p> <p>4.2 Environmental concerns</p> <p>4.3 Eagerness to learn</p> <p>4.4 Tidiness and timeliness</p> <p>4.5 Respect for rights of peers and seniors in workplace</p>
<p>5. Resource implications</p>	<p>5.1 Workplace</p> <p>5.2 Tools, equipment and facilities appropriate to processes or activity.</p> <p>5.3 Stand by firefighting equipment</p>

	<p>5.4 Materials relevant to the proposed activity.</p> <p>5.5 Equipment and outfits appropriate in applying safety measures.</p> <p>5.6 Relevant drawings, manuals, codes, standards and reference material.</p>
6. Methods of assessment	<p>6.1 Workplace observation</p> <p>6.2 Demonstration</p> <p>6.3 Oral questioning</p> <p>6.4 Written test</p> <p>6.5 Portfolio</p>
7. Context of assessment	<p>7.1 Competency assessment must be done in NSDA accredited assessment centre</p> <p>7.2 Assessment should be done by a NSDA certified/nominated assessor</p>
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OUABP003L2V1: Perform color mixing and matching
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required in performing color mixing and matching for automotive body painting.</p> <p>It includes the tasks of preparing for work with following OSH practices, determining mixing ratio, computing volume of paint, mixing paint, cleaning the spray gun, applying paint to test panel, checking spray out result, adjusting and preparing final color mixture, maintaining workplace cleanliness and storing tools.</p>
Nominal Hours	80 Hours
Elements of Competency	Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.
1. Prepare for work	<p>1.1 Safe work practices are observed and <u>Personal Protective Equipment (PPE)</u> worn as required for the work performed.</p> <p>1.2 Necessary <u>tools and equipment</u> are identified and collected in accordance with work requirement.</p> <p>1.3 Necessary <u>materials</u> are collected in accordance with work requirement.</p>
2. Determine Mixing ratio	<p>2.1 Correct information of car/vehicle color code is identified from VIN (vehicle Identification numbers) plate or manual</p> <p>2.2 Car/vehicle color code is identified by using spectrometer in absence of VIN plate</p> <p>2.3 Vehicle color code is matched with paint manufacturer color code.</p> <p>2.4 Color mixing ratio is extracted from paint manufacturer color software</p>
3. Compute volume of paint needed	<p>3.1 Amount of paint is computed per panel as per paint manufacturer specification</p> <p>3.2 Computation performed from software accurately as per paint manufacturer specifications</p>
4. Mix paint	<p>4.1 Tinting colors selected as per paint manufacturer's formula</p> <p>4.2 Weighing scale is calibrated</p> <p>4.3 Tinting color/clear coat are weighed according to formula</p> <p>4.4 Tinting color/clear coat is mixed as per procedure</p>

	<p>and determined ratio</p> <p>4.5 Tinters are stirred as required before and after mixing</p> <p>4.6 Mixing is performed following paint Material Safety Data Sheet (MSDS)/product data sheet (PDS)</p> <p>4.7 Paint container edges are thoroughly scraped and cleaned.</p>
5. Apply paint to test panel	<p>5.1 Sanding is performed to remove dirt and uneven surface</p> <p>5.2 Spray gun is prepared for spraying</p> <p>5.3 Sample paint mixture is strained and transferred to the spray gun.</p> <p>5.4 Paint sample RFU (Ready for use) is applied on test panel of standard size using spray gun according to paint manufacturer instruction</p> <p>5.5 Flash-off /Drying time is observed as per manufacturer specifications</p> <p>5.6 Clear coating is applied as per procedure for 2-stage/3-stage solid or metallic color mixing/matching.</p>
6. Check and match result of spray out panel	<p>6.1 Test Panel is put adjacent to original panel for color comparison using required light source</p> <p>6.2 Final approval of color is obtained as per positive matching result</p> <p>6.3 Missing/additional tinter is determined as per standard panel</p>
7. Adjust and prepare final color mixture	<p>7.1 Re-computation for missing/additional color is performed accurately.</p> <p>7.2 Color mixing is performed as per procedure</p> <p>7.3 Test panel application is performed as per procedure</p> <p>7.4 Final approval is obtained as per company standard operating procedures</p> <p>7.5 Test panel is preserved in color library for using as future reference data of same vehicle color</p>
8. Maintain workplace cleanliness and store tools	<p>8.1 Tools and equipment are cleaned and stored as per workplace standard</p> <p>8.2 Waste material are disposed as per workplace procedure</p> <p>8.3 Workplace is cleaned as per workplace standard</p>
Range of Variables	

Variables	Range (may include but not limited to):
1. Personal Protective Equipment	1.1 Gloves - cotton and solvent resistant 1.2 Safety shoes or boots 1.3 Dust mask, gas mask or respirator or particle mask or full-face mask 1.4 Antistatic overall Apron 1.5 Eye spectacle or goggles
2. Tools	2.1 Scraper 2.2 Funnel 2.3 Mixing cup 2.4 Strainer
3. Equipment	3.1 Air compressor 3.2 Spray gun 3.3 Air lines and accessories 3.4 Air dryer/filter 3.5 Infrared lamp 3.6 Painting booth/Mini paint booth 3.7 Polishing machine 3.8 Spectrophotometer 3.9 Glossmeter 3.10 Air pressure gage 3.11 Weighing scale 3.12 Paint mixing machine 3.13 Paint shaking machine 3.14 Personal computer
4. Materials	3.1 Complete set of paint tinter 3.2 Clear coat 3.3 Primer 3.4 Degreaser 3.5 Thinner 3.6 Polishing compound 3.7 Sample panel 3.8 Sanding paper
5. Car/Vehicle information	4.1 Plate number 4.2 Model and maker of vehicle 4.3 Engine Number 4.4 Name of Owner 4.5 Vehicle body color 4.6 Vehicle trim color

6. Color	5.1 Solid color - plain, no special effects, no metallic pigments 5.2 Metallic color - metallic sparkle effect at high light Pearl Mica color - Type of metallic color
7. Computation	6.1 Volume 6.2 Area 6.3 Total weight <ol style="list-style-type: none"> a. By individual weight method b. By percentage method c. By cumulative method
7. Required light source	For Solid color: 7.1 Color matching light 7.2 Direct sunlight - usually at 8-10am and at 3-5 pm normal weather condition 7.3 Indoor light -2 meters from window For Metallic color: 7.1 Sunlight at 10am -3pm 7.2 Color matching light at800-lux 7.3 Indoor light - 1 meter from window sunlight
Evidence Guide The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment requires evidence that the candidate: <ol style="list-style-type: none"> 1.1 Determined the correct color name or description code of the vehicle 1.2 Determined color mixing ratio 1.3 Computed volume, area and weight of paint needed 1.4 Mixed and matched paint 1.5 Applied paint to test panel by spraying 1.6 Adjusted and Prepared final color mixture 1.7 Identified color code 1.8 Extracted color mixing ratio 1.9 Selected tinting colors 1.10 Applied clear coating 1.11 Checked and matched result of spray out panel
2. Underpinning knowledge	<ol style="list-style-type: none"> 2.1 Necessary cleaning and degreasing agents 2.2 Equipment safety requirements 2.3 Correct operating procedures of Spray Gun 2.4 VIN numbers plate and color code 2.5 Color mixing ratio 2.6 Tinting colors

	<ul style="list-style-type: none"> 2.7 Use of color matching software 2.8 Color Mixing procedure 2.9 Effect of color blindness 2.10 Use of Material Safety Data Sheet 2.11 Test panel 2.12 Drying time/Flash-off time 2.13 Clear coating 2.14 color matching and necessity of matching 2.15 Color tinting guide 2.16 Missing tinter 2.17 Necessity of color library 2.18 Necessity of water container to dispose waste materials
3. Underpinning skills	<ul style="list-style-type: none"> 3.1 Assessing, interpreting and applying technical information 3.2 Using tools and equipment 3.3 Using and Handling Spray Gun 3.4 Mixing and transferring paint 3.5 Spraying paint 3.6 Using color matching software 3.7 Color comparison and matching 3.8 Computation skills 3.9 Communication skills in dealing with customer, superiors and peers
4. Underpinning attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.1 Workplace 5.2 Tools, equipment and facilities appropriate to processes or activity. 5.3 Stand by firefighting equipment 5.4 Materials relevant to the proposed activity. 5.5 Equipment and outfits appropriate in applying safety measures. 5.6 Relevant drawings, manuals, codes, standards and reference material.
6. Methods of assessment	<ul style="list-style-type: none"> 6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test

	6.5 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Unit Code and Title	OUABP004L2V1: Perform Polishing
Unit Descriptor	<p>This unit covers the knowledge, skills and attitudes required to perform polishing of automotive body painting.</p> <p>It includes the tasks of preparing for work with following OSH practices, assessing painted surface, preparing surface for polishing, polishing painted surface, cleaning the polished surface and installing body accessories, maintaining workplace cleanliness, storing tools and equipment</p>
Nominal Hours	60 Hours
Elements of Competency	<p>Performance Criteria <u>Bold and Underlined</u> terms are elaborated in the Range of Variables.</p>
1. Prepare for work	<p>1.1 Safe work practices are observed and <u>Personal Protective Equipment (PPE)</u> worn as required for the work performed.</p> <p>1.2 Necessary <u>tools and equipment</u> are identified and collected in accordance with work requirement.</p> <p>1.3 Necessary <u>materials</u> are collected in accordance with work requirement.</p>
2. Assess painted surface	<p>2.1 Adequate <u>lighting system</u> is used in assessing painted surface</p> <p>2.2 Appropriate <u>repair procedure</u> is accurately determined</p> <p>2.3 Appropriate <u>polishing procedure</u> is selected as per determined repair procedure</p>
3. Prepare surface for polishing	<p>3.1 Workplace is properly cleaned as per polishing compound manufacturer specification</p> <p>3.2 <u>Masking materials</u> are applied on necessary areas as per appropriate <u>masking procedure</u></p> <p>3.3 Panel/surface to be polished is placed as per polishing requirements</p>
4. Polish painted surface	<p>4.1 Manual hand polishing is applied on surface as per job requirements</p> <p>4.2 Sanding is applied on surface as per job requirements</p> <p>4.3 <u>Handling of polishing equipment</u>, tools and materials is done as per procedures</p> <p>4.4 Polishing is performed as per procedure</p> <p>4.5 <u>Polishing compound</u> are applied as per</p>

	<p>manufacturer standard</p> <p>4.6 Over polishing is avoided to prevent result of thin paint film</p>
5. Clean the polished surface	<p>5.1 Adequate clean tap water/cleaning agent for washing and cleaning is used</p> <p>5.2 Soft fine cloth or micro fiber cloth is used for wiping.</p> <p>5.3 Surface is wiped-dried and cleaned</p>
6. Install body accessories	<p>6.1 Safety requirements are observed in installing automotive body parts and accessories</p> <p>6.2 All dirt-free body accessories are installed as per requirement</p> <p>6.3 Final polished area is assessed before and after installation of body parts and accessories for repolishing or repainting.</p>
7. Maintain workplace cleanliness and store tools and equipment	<p>7.1 Tools and equipment are cleaned and stored as per workplace standard</p> <p>7.2 Waste material are disposed as per workplace procedure</p> <p>7.3 Workplace is cleaned as per workplace standard</p>
Range of Variables	
Variables	Range (may include but not limited to):
1. Personal Protective Equipment	<p>1.1 Gloves - cotton and solvent resistant</p> <p>1.2 Safety shoes or boots</p> <p>1.3 Dust mask, gas mask or respirator or particle mask or full-face mask</p> <p>1.4 Antistatic overall Apron</p> <p>1.5 Eye spectacle or goggles</p>
2. Tools	<p>2.1 Scraper</p> <p>2.2 Box wrench set</p> <p>2.3 Socket wrench set</p> <p>2.4 Screw driver (Flat or Philips head)</p> <p>2.5 Pliers</p> <p>2.6 Ball peen Hammers</p> <p>2.7 Trim opener set</p>
3. Equipment	<p>2.1 Sander Dual action or Orbital with dust extractor</p> <p>2.2 Air compressor</p> <p>2.3 Air lines and accessories</p> <p>2.4 Air dryer/filter</p> <p>2.5 Polishing machine</p> <ul style="list-style-type: none"> ▪ Dual action ▪ Single action <p>2.6 DFT gage</p>

	2.7 Glossmeter 2.8 Dent/dirt detection lamp
4. Materials	3.1 Polishing compounds (coarse, medium and fine) Polishing pads and foam (coarse, medium and fine) 3.2 Micro Fiber cloth 3.3 Micro fiber pad ((coarse, medium and fine) 3.4 Sanding pads as per required grade 3.5 Lamb wool pad
5. Lighting system	4.1 illumination of <ul style="list-style-type: none"> ▪ 800-1000 lux ▪ Natural sunlight
6. Repair procedure	5.1 Sanding and repainting 5.2 Sanding <ul style="list-style-type: none"> ▪ Medium Coarse sanding ▪ Fine sanding 5.3 Coarse Polishing <ul style="list-style-type: none"> ▪ Medium coarse polishing ▪ Fine Polishing
7. Masking materials	6.1 Masking paper/plastics 6.2 Masking tapes for auto use 6.3 Moldings tapes 6.4 Fine line tapes 6.5 Spray -type masking 6.6 Masking paper roll 6.7 Masking film
8. Masking procedures	7.1 Reverse masking 7.2 Masking non-removable parts 7.3 Masking curved or complex areas or surfaces 7.4 Masking for block or whole panel painting 7.5 Masking for spot repairs
9. Handling of polisher	8.1 Angle of polishing 8.2 Direction of rotation 8.3 Strokes in polishing
Evidence Guide	
The evidence must be authentic, valid, sufficient, reliable, consistent and recent and meet the requirements of the current version of the Unit of Competency.	
1. Critical aspects of competency	Assessment requires evidence that the candidate: <ul style="list-style-type: none"> 1.1 Assessed painted surface 1.2 Prepared surface for polishing 1.3 Applied Sanding 1.4 Performed Polishing 1.5 Applied Polishing compound

	<ul style="list-style-type: none"> 1.6 Cleaned the polished surface 1.7 Installed body accessories 1.8 Maintained gloss level of polishing
2. Underpinning knowledge	<ul style="list-style-type: none"> 2.1 Types of polishing compounds 2.2 Procedure in using polisher 2.3 Procedure in polishing 2.4 Lighting system 2.5 Types of lighting sources 2.6 Kinds of Paint Repair procedures 2.7 Procedure in cleaning polished surface 2.8 Procedure in removing and installing automotive body parts and accessories 2.9 Kinds of polishing defects 2.10 Use of gloss meter 2.11 Handling and use of polishing equipment
3. Underpinning skills	<ul style="list-style-type: none"> 3.2 Performing polishing 3.3 Cleaning the polished surface. 3.4 Installing body parts and accessories 3.5 Using and Handling Polishing equipment and tools facilities 3.6 Using Polishing materials 3.7 Communication skills in dealing with customers, superiors and peers
4. Underpinning attitudes	<ul style="list-style-type: none"> 4.1 Commitment to occupational health and safety 4.2 Environmental concerns 4.3 Eagerness to learn 4.4 Tidiness and timeliness 4.5 Respect for rights of peers and seniors in workplace
5. Resource implications	<p>The following resources must be provided:</p> <ul style="list-style-type: none"> 5.7 Workplace 5.8 Tools, equipment and facilities appropriate to processes or activity. 5.9 Stand by firefighting equipment 5.10 Materials relevant to the proposed activity. 5.11 Equipment and outfits appropriate in applying safety measures. 5.12 Relevant drawings, manuals, codes, standards and reference material.
6. Methods of assessment	<ul style="list-style-type: none"> 6.1 Workplace observation 6.2 Demonstration 6.3 Oral questioning 6.4 Written test

	6.5 Portfolio
7. Context of assessment	7.1 Competency assessment must be done in NSDA accredited assessment centre 7.2 Assessment should be done by a NSDA certified/nominated assessor
<p>Accreditation Requirements</p> <p>Training Providers must be accredited by NSDA, the National Quality Assurance Body, or a body with delegated authority for quality assurance to conduct training and assessment against this unit of competency for credit towards the award of national skills qualification. Accredited providers assessing against this unit of competency must meet the quality assurance requirements set by NSDA.</p>	

Development of Competency Standard

The Competency Standards for National Skills Certificate Level-02 in **Automotive Body Painting** is Developed by NSDA on 8-10 November, 2022.

List of members:

Sl. No.	Name and Address	Position in the Committee
1.	Alif Rudaba, Member (Planning and Skills Standard) Joint Secretary, National Skills Development Authority (NSDA)	Chairperson
2.	Mr. Md. Mosaddeque Hossain Former Instructor, Power (Automobile), Dhaka Polytechnic Institute, Dhaka Phone: 01764300400 E-mail: mhautoman@gmail.com	Member
3.	Mr. Pradip Kumar Mistry General Manager, Training, Millennium Bangla Ltd. Dhaka Phone: 01771339777 E-mail: automistry@gmail.com	Member
4.	Mr. Subrata Paul Head Vehicle Refinish Berger Paint Bangladesh Ltd. 273-276 Tejgaon Industrial Area, Dhaka Phone: 01711 404723 E-mail: subrata@bergerbd.com	Member
5.	Mr. Ratan Barua Technical Officer Vehicle Auto Refinishing Berger Paint Bangladesh Ltd. 273-276 Tejgaon Industrial Area, Dhaka. Phone: 01713 158550 E-mail: ratan.barua@bergerbd.com	Member
6.	Mr. Md. Kamrul Hassan Hady DGM, Rangs Motors Workshop Ltd. Rangs Group, Dhaka Phone: 01711180330 E-mail: Kamrul.hady@rangsgroup.com	Member
7.	Mr. Md. Akter Hossain Senior Technician (Paint), Rangs Motors Workshop Ltd. Sonargaon, Narayonganj Phone: 01950908022	Member

8.	Mr. Md. Nazrul Islam Competency Standard Expert National Skills Development Authority (NSDA) Cell: +880 1711 273708 Email: ndewli@yahoo.com	Member
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Validation of Competency Standard by Standard and Curriculum Validation Committee (SCVC)

The Competency Standards for National Skills Certificate Level-02 in **Automotive Body Painting** is validated by SCVC on 23-24 November, 2022.

List of members of the SCVC:

Sl. No.	Name and Address	Position in the committee	Signature
1.	Mr. Md. Abdur Razzaque Chairman, ISC Light Engineering Sector 2, Folder Street , Wari, Dhaka Phone: 01819 245588, E-mail: beioa2008@gmail.com , smc3155@gmail.com	Chairperson	
2.	Mr. Subrata Paul Head Vehicle Refinish Berger Paint Bangladesh Ltd. 273-276 Tejgaon Industrial Area, Dhaka Phone: 01711 404723 E-mail: subrata@bergerbd.com	Member	
3.	Mr. Md. Ismail Hossain Chief Executive Royal Auto Car & Servicing Centre, Ka-93/4/C, Kuratoli, Kuril, Dhaka 1229 Phone: 01633086678, E-mail: assetcallbd@gmail.com	Member	
4.	Mr. Anowar Hossain Business Development Manager Power Craft Group Limited House-29, Road-3, Dhanmondi, Dhaka Phone: 01727059013, E-mail: pranoho@gmail.com	Member	
5.	Mr. Md. Habibur Rahman Habib Sr. Manager – Equipment Sales and Service Akij Motors, Akij Chamber 73 Dilkusha C/A, Motijheel, Dhaka Phone: 01777773450, E-mail: garageequipment@akijmotors.com	Member	
6.	Mr. Md. Nazrul Islam Competency Standard Expert National Skills Development Authority (NSDA) Cell: +880 1711 273708 Email: ndewli@yahoo.com	Member	