Australian Government
Department of Education, Employment and Workplace Relations

HLTOPT407C Apply surface coatings to ophthalmic lenses

Release: 1

ISC INDUSTRY SKILLS COUNCILS
Creating Australia's Future

HLTOPT407C Apply surface coatings to ophthalmic lenses

Modification History

HLT07 Version 4	HLT07 Version 5	Comments
HLTOPT407B Apply surface coatings to ophthalmic lenses	HLTOPT407C - Apply surface coatings to ophthalmic lenses	Unit updated in V5. ISC upgrade changes to remove references to old OHS legislation and replace with references to new WHS legislation. No change to competency outcome.

Unit Descriptor

Descriptor

This unit of competency describes the skills and knowledge required to apply hard and multi coating to ophthalmic lenses

Application of the Unit

Application

The application of knowledge and skills described in this competency unit related to functions necessary for working within optical technology

Work at this level may be undertaken independently or under guidance and/or supervision

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Not Applicable

Employability Skills Information

Employability Skills This unit contains Employability Skills

Elements and Performance Criteria Pre-Content

Elements define the essential outcomes of a unit of competency.

The Performance Criteria specify the level of performance required to demonstrate achievement of the Element. Terms in italics are elaborated in the Range Statement.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Check quality of lens	1.1 Ensure quality of lens surface 1.2 Ensure optical quality of lens is within acceptable tolerances 1.3 Ensure lens complies with prescription needs and fitting criteria of prescription
2. Apply clean-room practices	2.1 Ensure appropriate clean-room practices and procedures are implemented 2.2 Identify and remedy unwanted contaminants in clean-room area 2.3 Identify compliance of wearing appropriate personal protective equipment

ELEMENT	PERFORMANCE CRITERIA
3. Apply dirty-room practices	3.1 Ensure all solvents, acids and cleaning products are labelled in compliance with OH&S criteria and Material Data Safety Sheets 3.2 Recognise 'hazards' and address relevant hazardous situations appropriately 3.3 Ensure all safety practices are complied with in ordering, use, handling and storage of solvents, acids and cleaning products 3.4 Ensure all legislative and environmental regulations are adhered to in the disposal of solvents, acids and cleaning products 3.5 Ensure use of appropriate PPEs within the dirty-room environment
4. Identify type of *coating*	4.1 Interpret lens order 4.2 Arrange appropriate scheduling for batch coating processing 4.3 Select *appropriate coating process*
5. Apply coating to lenses	5.1 Prepare lens for coating, ensuring holding apparatus will not interfere with quality of coating 5.2 Apply hard and/or primer coating to specifications 5.3 Cure lens coating according to manufacturers' recommendations 5.4 Complete all quality checks on substratum ensuring compliance to needs of vacuum deposition process 5.5 Apply *vacuum coating*

ELEMENT	PERFORMANCE CRITERIA
6. Check coating finish	6.1 Check light transmission of coating in line with manufacturer/suppliers recommendations and/or organisational policies and procedure 6.2 Check lens surface in line with manufacturer/ supplier recommendations and/or organisation policies and procedure 6.3 Check surface quality in line with manufacturer/ supplier recommendations and or organisation policies and procedure
7. Despatch lens	7.1 Package lens in order that no lens wastage occurs 7.2 Despatch lens in accordance with the lens order 7.3 Confirm completion of job

Required Skills and Knowledge

This describes the essential skills and knowledge and their level required for this unit.

Essential knowledge:

The candidate must be able to demonstrate essential knowledge required to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes knowledge of:

- Chemical processes involved in lens coating according to material safety data sheets
- Cleanliness
- Lens types and lens materials
- Manufacturing/process waste disposal
- Process flows and batch production methodologies
- Protective clothing
- Safe ordering, use, handling, storage and disposal of chemicals in accordance to supplier's recommendations and or Material Safety Data Sheets
- Safety process
- Standard operating procedures in line with manufacturer/supplier and/or organisation requirements
- Types of coatings including all substratum coatings and mulitcoatings

Essential skills:

It is critical that the candidate demonstrate the ability to effectively do the task outlined in elements and performance criteria of this unit, manage the task and manage contingencies in the context of the identified work role

This includes the ability to:

- Apply good housekeeping practices
- Communicate with others
- Follow WHS and standard operating procedures
- Manage process flow
- Work independently
- Take into account opportunities to address waste minimisation, environmental responsibility and sustainable practice issues

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate this competency unit:	• The individual being assessed must provide evidence of specified essential knowledge as well as skills • Observation of actual or simulated workplace performance is essential for assessment of this unit • Consistency of performance should be demonstrated over the required range of situations relevant to the workplace • Where, for reasons of safety, space, or access to equipment and resources, assessment takes place away from the workplace, the assessment environment should represent workplace conditions as closely as possible
Context of and specific resources for assessment:	• Resources essential for assessment include: • access to an optical appliance manufacturing workplace
Method of assessment	• Observation in the work place (if possible) • Written assignments/projects or questioning should be used to assess knowledge • Case study and scenario as a basis for discussion of issues and strategies to contribute to best practice

Access and equity considerations:

- All workers in the health industry should be aware of access and equity issues in relation to their own area of work
- All workers should develop their ability to work in a culturally diverse environment
- In recognition of particular health issues facing Aboriginal and Torres Strait Islander communities, workers should be aware of cultural, historical and current issues impacting on health of Aboriginal and Torres Strait Islander people
- Assessors and trainers must take into account relevant access and equity issues, in particular relating to factors impacting on health of Aboriginal and/or Torres Strait Islander clients and communities

Related units:

It is recommended that this unit should be assessed in conjunction with or after the following units:

- HLTOPT401C Perform technical procedures for the production of ophthalmic appliances
- HLTOPT406B Edge and fit ophthalmic appliances

Range Statement

RANGE STATEMENT

The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

RANGE STATEMENT

Coatings may include:

- Anti reflection coatings
- Hard coatings
- Mirror coatings
- Other substratum used in the vacuum deposition process

Appropriate coating process may include but is not limited to:

- Lens preparation
- Stripping
- Thickness control (substratum)
- Application of substratum
- Batch processing methodologies
- Selection of appropriate coating crucible
- Selection of correct coating 'stack'

Equipment servicing, maintenance process may include but is not limited to:

- Replacement of hard coatings
- Vacuum deposition chamber cleaning procedures
- Associated equipment cleaning and replacement procedures
- Coating crucible replacement .

Vacuum coating process may include:

- Hydrophopic coating application
- Ultra-sonic cleaning procedures
  - hangers
  - solvents
  - times
- Solvent and acid ordering, use, handling, storage and disposal in accordance to appropriate legislative and environmental regulations
- Clean-room compliance
- Complying with clean-room/PPE practices and procedures

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Unit Sector(s)

Not Applicable