



Australian Government

AURMTA103 Determine material suitability for competition vehicle components

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Application

This unit describes the skills and knowledge required to determine material suitability for constructing competition vehicle components. It involves determining component performance specifications, researching component operating environments, establishing material specifications for the components, and testing material suitability. It involves producing new components from a design as well as producing existing components from new material.

The unit applies to those working in the motor sport industry.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Unit Sector

Motorsport Technical

Elements and Performance Criteria

ELEMENTS	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Establish component performance specifications	1.1 Determine component specifications from performance specifications 1.2 Establish component operating environment 1.3 Confirm component operating function 1.4 Prepare component performance specifications
2. Establish material performance specifications	2.1 Confirm material operating function 2.2 Identify and document criteria to be used in selection of material and in evaluation of outcomes

ELEMENTS	PERFORMANCE CRITERIA
	2.3 Access and interpret specifications for material 2.4 Consider and respond to legal and safety impacts of material chosen according to regulatory and team obligations and practices 2.5 Prepare and document material performance specifications to industry and team standards
3. Test material suitability against material performance specifications	3.1 Identify material capable of undertaking the required operating function 3.2 Select proposed material following identification, consideration and evaluation of full range of available options 3.3 Select or construct material to component specifications, according to manufacturer specifications, workplace procedures and safety requirements 3.4 Develop selected option, including material choices and processes, in detail and validate progressively against established criteria 3.5 Test material against material performance specifications 3.6 Identify causes of material failure as required 3.7 Document testing procedures and results
4. Test component suitability against component performance specifications	4.1 Determine component test procedures 4.2 Test component against component performance specifications according to manufacturer specifications, workplace procedures, and safety and environmental requirements 4.3 Document testing procedures and results

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Learning	- Locates required sources of information efficiently - Adapts procedures to different vehicles, components and materials.
Numeracy	Interprets numbers and units of measurement of material specifications and testing equipment.
Oral communication	Clarifies instructions and material requirements, report findings, and make recommendations regarding material

SKILL	DESCRIPTION
	suitability.
Reading	• Interprets team instructions and procedures and controlling body rules, category rules and supplementary regulations • Interprets information from material manufacturer specifications.
Writing	• Documents material selection criteria and performance specifications.
Planning and organising	• Plans own work requirements • Prioritises actions to achieve required outcomes • Ensures tasks are completed within workplace timeframes.
Self-management	• Works efficiently with minimal supervision.
Technology	• Operates specialised material testing equipment.

Unit Mapping Information

Supersedes and is equivalent to AURMTA003 Determine material suitability for competition vehicle components.

Links

Companion Volume Implementation Guide is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>