



world**skills**  
New Zealand

**2010 NATIONAL COMPETITION**

# Automotive Refinishing

**Pre-Competition Information**

**Project Designer/s:**

Craig Marshall  
Roger Hiini

## INTRODUCTION

Congratulations on entering a WorldSkills New Zealand National competition. The pathway to success includes a careful study of these instructions. **Please read these instructions fully and retain them for the competition day.**

A WorldSkills New Zealand competition will give you a ranking against your peers according to the skills you demonstrate on the three days of competition. You are judged according to your ability to achieve set goals and are awarded marks according to how well you achieve those goals. Unlike standard competency assessments if you perform better than the industry standard demands (the minimum mark), then you will be rewarded for that effort.

## SKILL LIST

### ***Preparation and application of two pack paints.***

Competitors must adhere to all health and safety requirements when preparing and applying all paint products. Manufacturers recommendations must also be followed during the competition, if you are unaware of the recommendations please consult the WorldSkills New Zealand Skill Experts (Roger Hiini – 0272 080 552 and Craig Marshall – 0272 105 037).

### ***Preparation and application of polyester fillers***

Preparation and repair of panels is required during the competition. You may use polyester filler or hammer and file for this section of the competition.

### ***Colour matching: metallic's and/or pearls required.***

Certain criteria are required for this section of the competition such as:

- Colour matching by formula identification without the use of a weight scales.
- Colour correction of mismatched paint.
- Mixing formulated colours using weight scales.

### ***Masking and design techniques.***

Masking and designs techniques will be required during the competition:

All dimensions are required to be within a 1mm tolerance.

Design work must be clean and without fault.

### ***Job organization, planning and conduct/safety.***

Organization of your time during the competition will be monitored.

Your conduct towards judges and other competitors must be of a high standard.

All health and safety and associated legislations and regulations must be adhered too.

## COMPETITION SCHEDULE

The maximum working time for this competition is 22 hours. As a competitor you should keep track of time yourself. The timetable for the days of competition is shown below.

### ***Day of Arrival (Wednesday 22<sup>nd</sup> September)***

1.00 – 2.00 pm	Arrival, draw for work stations and instructions
2:30 – 4:00	Familiarisation on stands
4:00 pm	Bus to Madras street
5.00 – 6.00 pm	Opening ceremony

### ***Day 1 (Thursday 23<sup>rd</sup> September)***

9.00 am	Familiarisation
9.10 am	Commence work on project
Competitors take breaks at different times Morning and afternoon breaks – 15 min Lunch – ½ hr	Morning Break
	Continue with work project
	Lunch Break
	Continue with work project
	Afternoon Break
	Continue with work project
5.30 pm	Stop work on the project
6.00 pm	Competition debrief

### ***Day 2 (Friday 24<sup>th</sup> September)***

8.00 am	Familiarisation
8.10 am	Commence work on project
Competitors take breaks at different times Morning and afternoon breaks – 15 min Lunch – ½ hr	Morning Break
	Continue with work project
	Lunch Break
	Continue with work project
	Afternoon Break
	Continue with work project
4.30 pm	Stop work on the project
4.30 pm	Competition debrief

### **Day 3 (Saturday 25th September)**

8.30 am	Familiarisation
8.40 am	Commence work on project
Competitors take breaks at different times Morning and afternoon breaks – 15 mins Lunch – ½ hr	Morning Break
	Continue with work project
	Lunch Break
	Continue with work project
	Afternoon Break
Continue with work project	
3.00 pm	Stop work on the project
3:30 – 4 pm	Competition debrief

### **Day 4 (Sunday 26<sup>th</sup> September)**

	Cleaning up at the venue
11am	Awards Ceremony

### **MARKING SCALE SUMMARY**

All competitors who compete in this skill category will be judged according to the same criteria. A summary of the different project sections and the number of marks allocated to each section is shown below.

<b>SECTION</b>	<b>TASK</b>	<b>MAX. POSSIBLE MARK</b>
1a	Preparation	10
1b	Sanding	10
2a	Application of Base coats	10
2b	Application of Clear coats	20
3a	Masking & Design	15
4a	Colour Matching: colour A	10
4b	Colour Matching: colour B	10
5a	Job Organisation, Conduct and planning	5
6a	Correct safety procedures	10
<b>TOTAL</b>		<b>100</b>

## DESCRIPTION OF MARKING SYSTEMS

The following marking systems will be used by the Judges in their assessment of your project.

### ***Objective Marking***

Judges will carry out **objective marking** in areas of the project where tolerances can be applied or where it can clearly be seen that a task has or has not been completed.

### ***Subjective Marking***

Judges will carry out **subjective marking** in areas of the project where a visual assessment needs to be made.

### ***Description of Judges marking scale where subjective marking is to be used***

Judges Marking Scale	Mark 0-10
Perfect	10
Very Good	9
Good	8
Acceptable	7
Sufficient	6
Medium	5
Weak	4
Poor	3
Bad	2
Very Bad	1
Not acceptable/Not attempted	0

## **EQUIPMENT TO BE SUPPLIED BY THE COMPETITOR**

Competitors are responsible for their own tools. It should be noted that all power tools and machinery must comply with OSH regulations and have adequate safety guards and be in what is deemed to be safe operating condition. At the discretion of the officials any suspect piece of equipment may be prevented from being used. Competitors should supply the information listed below.

### **Required for the competition**

- Air feed respirator
- Carbon activated respirator
- Goggles
- Overalls
- Spraying overalls
- Safety boots
- Spray guns for the application of primer, base coat and clear coat
- Pen, pencils for design work
- Ruler and rubber
- Sanding blocks
- Small rubber squeegee
- Gun brushes
- Blow guns

### **Optional for the competitors**

- Personal machine sanders
- Gun stands
- Single bar Infra red unit
- Machine buffs
- Panel stands
- Viscosity cup

## **EQUIPMENT AND MATERIALS TO BE SUPPLIED BY THE ORGANISERS**

### **Vehicle Parts**

One Front guard, Door skin and stand



### **Colour System**

Technical data information

Colour mixing system: DuPont™ Refinish System

Cleaning products: DuPont™ 3920S Degreaser

Primer material: DuPont™ 1040R Primer

Finishing paints: DuPont™ Centari® 600 Basecoat; DuPont™ 120S Standard MS 2K Clear

Hardeners: DuPont™ Refinish System

Thinners: DuPont™ AB380 Basecoat Thinner, DuPont AK350 Blending Thinner.

### **Drying and Spraying Equipment**

1 Spray booth spray and Infra red drying area

Infrared drying units

Air connections/adaptors

### **Masking Materials**

Masking paper dispenser to equip masking paper and tape 3M

15 rolls various size's masking tape 18 and 48 mm

15 rolls various sizes fine line masking tape 3.mm and 6 mm

Masking material paper, tape and vinyl covering 3M

### **Abrasive Equipment and Materials**

Festo Sanding System 3 mm, 7-mm stroke 6" sander connected to fume and dust extractor

3M Abrasive sandpaper and other wet/dry sanding material, used by machine or manually

1 packet grey Scotchbrite

1 packet gold Scotchbrite

1 box sanding sponges (medium)

1 box sanding sponges (fine)

1 box sanding sponges (super fine)

1 box sanding sponges (ultra fine)

6 small packets of tack cloth

1 box various Hookit sanding disc 80, 180, 320, 500,1200 and 1500

3M Sand papers

1 box various Hookit 255p small block extraction hole sheets 80, 150 and 240

Guide coat powder type, 058613M

Interface Pad Hookit

### Polishing Equipment and Materials

3M polishing liquids and compounds

3M Scalloped disc pads white and black

Cheesecloth fine

Extension leads

### Computer and measurement Equipment

Printer for colour data printing

Scale electronic, to the third decimal place

### Cleaning Equipment

Cleaning machine for spray gun cleaning

Colour mixing can holder

Putty holder

### Safety Equipment

Spreader plastic

Tack cloths

Air feed respirator

Solvent proof gloves

Dust free spray overalls

### Work Stations

Workbench/desk

Compressed air system hose

Adjustable stand

Water supply

Rubbish bins

Brooms and mops

Trestles

Water buckets

### Sundries

3M Polyester filler

Colour matching cards (paper)

Colour matching cards (metal cards for final colour matches)

Large bag of rags

Paint strainers

Polishing cloths

Water spray bottles

Paint tins - various sizes

Paint mixing sticks

Paint labels

Paint tin openers