

TRADE OF VEHICLE BODY REPAIR

PHASE 2

Module 5

UNIT: 4

Masking Materials and Techniques



Produced by

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Table of Contents

Introduction	5
Unit Objective	6
Spray-Painting Material	6
1.0 The Most Efficient Method for Masking off Panel/Panels on a Motor Vehicle	7
1.1 Types of Masking Materials.....	7
1.2 Principles of Static Covers.....	9
1.3 Specialist Masking Tapes	11
2.0 Soft Edge Masking on a Vehicle	12
2.1 Positioning of Soft Edge Foam Masking.....	12
3.0 Masking System Efficient in the Application of Two-Tone Paint	14
3.1 Two Tone Colours Masking.....	14
3.2 Roll Edge Masking Principles	14
3.3 Full Panel Masking Techniques	16
3.4 Respray Masking Techniques.....	16
4.0 The Correct Method of Masking Removal	17
4.1 Masking Removal and Disposal Procedures	17
Summary	18
Self Assessment	19
Suggested Exercise	
Training Resources	

Table of Figures

Figure 1: Wheel and Mirror Covers	9
Figure 2: Trim Masking Tape	13
Figure 3: Use of Double Taping Technique when Spraying to an Edge	15

Introduction

Efficient paint repair work calls for close attention to detail when applying masking tape and paper. It also needs high grade materials.

Masking with small pieces of tape and numerous bits of paper in a haphazard way is a waste of time and effort. The aim should be simplicity. Use large sheets of paper cut to the appropriate shape and size before fixing; avoid folds and wrinkles which trap dust and over-spray.

Note: Masking is a skill therefore great care and attention must be given to it because in correct masking will affect the appearance of the job as a whole.

It is often necessary to remove tape and paper masking while the finish coat is still wet or very soft. Then it will be faster, easier and safer to deal with long, uncomplicated runs of masking.

Unit Objective

Spray-Painting Material

By the end of this unit each apprentice will be able to:

- Identify the most efficient method for masking off panel/panels on a motor vehicle
- Outline and demonstrate where soft edge masking would be used on a vehicle
- Choose a masking system that is efficient in the application of two-tone paint
- Demonstrate the correct method of masking removal

Key Learning Points:

- Types of masking materials
- Full panel masking techniques
- Roll edge masking principles
- Positioning of soft edge foam masking
- Principles of static masking covers
- Respray masking techniques
- Two-tone colour masking
- Masking removal and disposal procedures

1.0 The Most Efficient Method for Masking off Panel/Panels on a Motor Vehicle

1.1 Types of Masking Materials

Masking Paper

Masking paper should be of good quality, with high wet strength, freedom from loose fibres and resistance to solvent penetration. Newspaper, which does not meet any of these requirements, has the added disadvantage of containing printing inks which are soluble in some paint solvents. These may be transferred to the underlying finish causing staining.



Masking Paper

Masking Tape

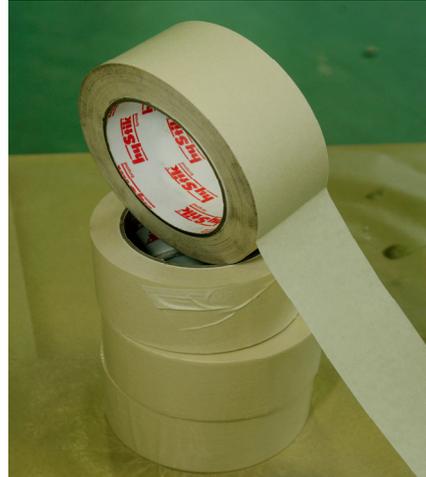
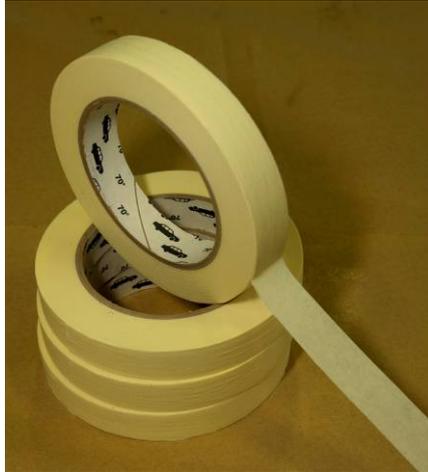
Good quality deeply crêped masking tape will resist puckering and loss of adhesion on tight curves. But for really small radius curves, narrow tape is more efficient.



Used to mask rubber mouldings:

- No adhesion transfer
- Excellent flexibility around curves

Masking tape has an elastic property which is often helpful when following curves. However, when masking newly applied finishes which are still soft beneath the surface, it is wise to avoid stretching the tape as this can increase the degree of tape marking on the finish.



General Purpose Auto Masking Tape

If it is found that the masking tape will not stick to glass or chromium parts and the paint shop is cold and damp with little air movement, the answer probably lies in the existence of an almost invisible film of condensation which has formed on these parts. It must be wiped off before the tape will adhere properly.

Foam Mask

Foam mask is designed in a way that it will not leave an edge when spray is brought to it.



Foam Mask

1.2 Principles of Static Covers

Clear Masking Film

A high density, clear polyethylene sheeting designed to protect the vehicle from paint overspray.

- No paint or primer flaking
- Static cling ensures complete masking
- Simple one-person application
- Easy to cut



Mirror Cover

Mirror covers are simply plastic bags that are put over mirrors and taped in place.

Wheel Covers

Wheel covers are covers shaped like a wheel that can be reused to stop spray getting on the road wheels.

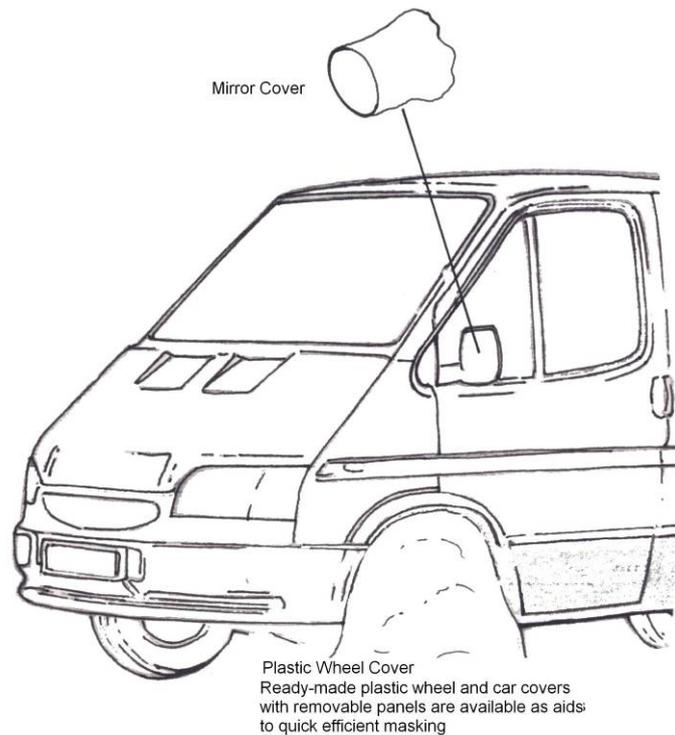


Figure 1: Wheel and Mirror Covers

Dispensers

The use of masking tape and paper dispensing equipment is strongly recommended. It makes the masking operation much easier and quicker.



Masking Dispenser

Slime – Overspray Masking Film

An overspray masking liquid that is an alternative to plastic bags and sheets. Protects vehicles surfaces throughout the repair process from paint overspray, light scratches and even weld splatter. Applied by spraygun, dries to the touch trapping dust under the film even in areas such as wheel arches. After use, simply wash away.

- Totally protects bodywork from overspray and eliminates rectification.
- Protects vehicles from most minor damage e.g. welding sparks.
- One coat - saves labour time.
- Traps dirt and dust - stops contamination.
- Easy disposal - just washes off.

1.3 Specialist Masking Tapes

‘Fine Line’ Striping Tapes

The tape is about 15yds long, by 1" wide, and slit into varying strips. By lifting and peeling out any one of the strips, an infinite number of multiple striping configurations can be produced. Being only 0.0045" thick, the problem of edge build-up when over painting is reduced to a minimum.

- Low tack adhesive will not leave an imprint even if paint has not fully cured
- Flexible – copes well with contours
- Resists scuffing during flattening

‘Fine Line’ Masking Tape

A more specialised tape, combining the features of Auto Masking Tape with those required for fine two tone or paint striping work.

- Sharp paint lines
- Less edge build up
- Excellent curvability without edge tear or wrinkling
- Virtual elimination of imprint even on fresh paint surface, due to low tack adhesive

Trim Lifting Cord

Eases the problems when painting up to a rubber moulding such as around a windscreen. A flexible 6mm diameter foam cord is slid under the moulding using a clever applicator tool. Quick to apply, the cord ensures no edge build up and no visible evidence of repair work.

- Speeds vehicle painting
- Eliminates edge build up

2.0 Soft Edge Masking on a Vehicle

2.1 Positioning of Soft Edge Foam Masking

Soft - Edge Masking Foam Tape

An effective solution to time-consuming masking of vehicles prior to painting. The tape is used to mask vehicles apertures such as door, bonnet, and filler cap. As well as achieving the required 'soft edge', this tape ensures that the interior of the vehicle is kept free of paint and dust.

- Rapid and efficient masking of car apertures
- Eliminates unwanted definite paint edges
- Impermeable to paint and dust, eliminating need to protect interior door trim
- Reduces re-work to a minimum

Size	Pack Size	Part No.	Packs/Unit
13mm	10 x 5m	09678	1
19mm	7 x 5m	09973	1

Trim Masking Tape

Development for masking the rubber trim on bonded screens and sealed windows. A small plastic strip is pushed behind the rubber and 38mm self-adhesive tape is folded back and stuck to the window to hold the rubber clear of the paintwork.

- Protects runner from overspray
- Easy to mask around corners
- Excellent temperature performance
- Available in 10 mm and 15mm to cover the different types of rubber trim

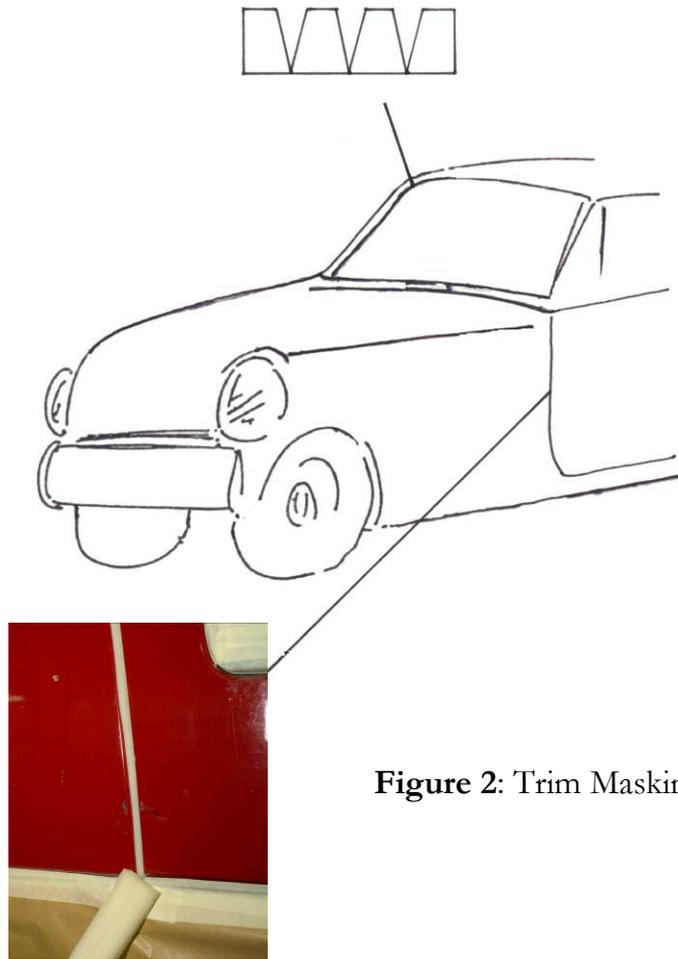


Figure 2: Trim Masking Tape

3.0 Masking System Efficient in the Application of Two-Tone Paint

3.1 Two Tone Colours Masking

Duotone Work

For duotone work, where the colour break line is not hidden by a chromium capping strip or moulding, it is vital that the masking tape edge is firmly pressed down.

Projections

Radio aerials and door handles should be masked with the tape running lengthwise rather than wrapped around or 'bandaged'. Bandaging makes masking extremely difficult to remove by hand after painting. Using a knife to cut away the tape often leads to an accidental slip which could damage the new paintwork.

Note: Use fine striping tapes



Duo Tone Masking

3.2 Roll Edge Masking Principles

Spraying to a break or trim will enable slight colour difference to go undetected. More effective is the technique of spraying to an edge where the angle of the panel changes. Metallic finishes vary in lightness or darkness according to the angle of viewing. Even with the same metallic paint, the colour on two adjoining panels at an angle to each other will appear different.

Spraying to an edge is accomplished by careful application of two strips of masking tape.

By spraying into the angle formed by the panel under repair and the projecting masking tape, a fade out is obtained at the panel edge.

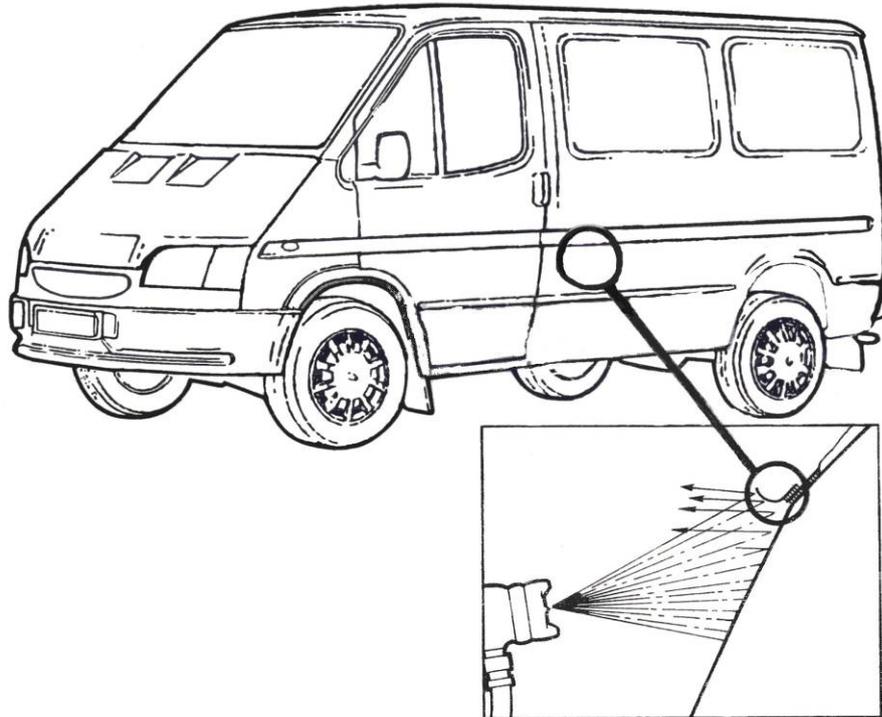


Figure 3: Use of Double Taping Technique when Spraying to an Edge

3.3 Full Panel Masking Techniques



Line out panel

First line adjacent panels to the panel to be sprayed



Second cover adjacent panels to reveal full panel masking

3.4 Respray Masking Techniques

When a vehicle is masked for a respray the only visible parts will be the panels to be sprayed.



4.0 The Correct Method of Masking Removal

4.1 Masking Removal and Disposal Procedures

It often helps to remove tape and paper masking while the finishing coat is still wet or very soft. Then it will be faster, easier and safer to deal with long, uncomplicated runs of masking.

Disposal see **Module 5 Spray Painting Unit 1. Health and Safety** (Disposal of Hazardous Waste)

Summary

Bodyshops will have high performance tape designed to meet most of the paint masking situations. Excellent water resistance, suits both modern 2-pack and water-based paint products. This helps the operators to achieve quality repairs which the public now expect.

Self Assessment

Questions – Module 5. Unit 4

1. What does roll edge tape prevent?

2. Which side of masking paper is turned out dull side or glossy side?

3. What advantage has masking film over masking paper?

4. Where would you roll edge masking tape?

5. What is fine-line tape used for?

6. What is duotone work?

7. Where would you use a trim lifting cord?

8. What advantages have the use of a masking machine?

9. What run of tape is easier and safer to remove?

10. Where should masking tape be stored?

Answers to Questions 1-10. Module 5. Unit 4

1.

It prevents an edge build up of paint

2.

Glossy

3.

Covers a larger area faster

4.

To an edge or trim line

5.

Its used to reduce the formation of edges

6.

Two colours on a vehicle

7.

You would use a trim lifting cord under rubber trims to raise them for painting

8.

Quicker and easier

9.

Long runs are easier to remove

10.

Masking tape should be stored in a warm dry place

Suggested Exercise

1. Degrease and mask off a motor vehicle for an overall respray.
2. Employ the use of foam tape for all opening panels.
3. Efficiently and accurately mask window, mirrors and bumper.
4. Use static masking wheel covers to complete the masking task.
5. Inspect the finished masking exercise to ensure that all seams are closed and no paint work is inadvertently masked.
6. State when masking should be removed and then demonstrate the correct removal technique for masking.

Training Resources

- Classroom/workshop with visual aids
- Motor vehicle
- Various types of masking tapes
- Masking paper
- Masking machine and various types of static masking covers
- Craft knife and scissors

S O L A S

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