

Marking specimens with the High Strain Specimen Marking Kit



This guide covers how to use the High Strain Specimen Marking Kit to ensure suitable marking when testing to high strains (for information on ISO 37 see Application Guide AG1050).

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Specimen marking for high strains

Example of specimen marking

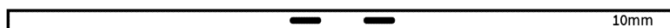


Figure 1: Good specimen marking example

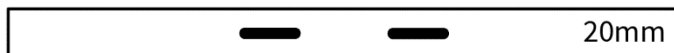
Available gauge length examples

There are several gauge lengths available; the procedure for using each remains the same. It is important that you select the appropriate size for your specimens and test. Some example gauge lengths are shown below.

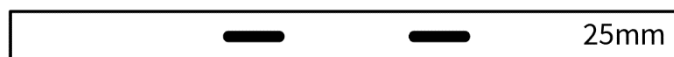
10mm gauge length



20mm gauge length



25mm gauge length



Steps for marking specimens

- | | |
|-----|---|
| 1.1 | Make sure the surface of your specimens is clear of other material that can prevent the label and paint adhering, such as dust and grease. Remove this with an appropriate cleaning solution if required. |
| 1.2 | Start to peel one end of the label off as shown in Figure 2. |

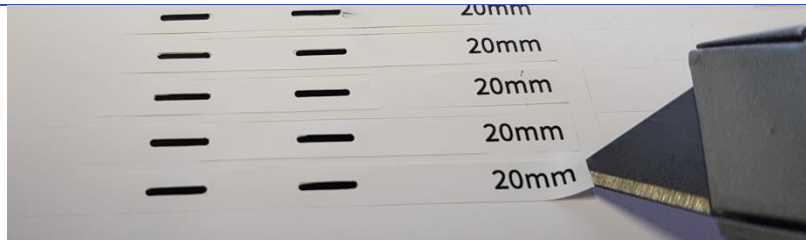


Figure 2: Peeling labels

- 1.3 Using the tip of a knife blade, remove the small black tabs as shown in Figure 3.



Figure 2: Removing black tabs

For large testing batches, you can remove the black tabs from all labels before peeling them off the sheet. Be careful not to crease the sheet or damage the label while doing this. The tip of a knife blade can be used to remove them, as shown in **Error! Reference source not found..**



Figure 4: Removing all black tabs

- 1.4 Align the label with your specimen, taking care to align it centrally on the test area as shown in Figure 5.



Figure 5: Align and place on specimen

Apply the label to the specimen and rub over its entire length to ensure a good bond to the surface.

- 1.5 Repeat the above steps for all specimens.

1.6

When you are ready to test a specimen, apply the markings carefully using the appropriate colour pen provided that gives the greatest level of contrast with your specimen. It is important to cover the entire area of each hole and to achieve good coverage at the ends of each hole. Holding the pen vertically can help to achieve this as shown in Figure 6.



Figure 6: Apply markings

Remove the label carefully by peeling it off the specimen from one end.

1.7

Inspect the pattern on the specimen to ensure that it is well defined. Ensure the ends of the dashes are rounded, as shown in Figure 7 - left. If the dashes do not have well-defined round tips, as shown in Figure 7 - right, turn the specimen over and use the other side, or remove the pattern with Isopropyl Alcohol and reapply.



Figure 7: Well defined dash (left) and unsuitable dash (right)

1.8

Mount the specimen in your test frame and conduct your test.

It is important not to leave the specimen too long once the markings have been applied as the paint from the pens reduces its elasticity as it dries, increasing the chances of the painting cracking or detaching from the specimen at very high strains.

For more, application specific guidance on carrying out testing on high elongation materials, refer to AG1050.