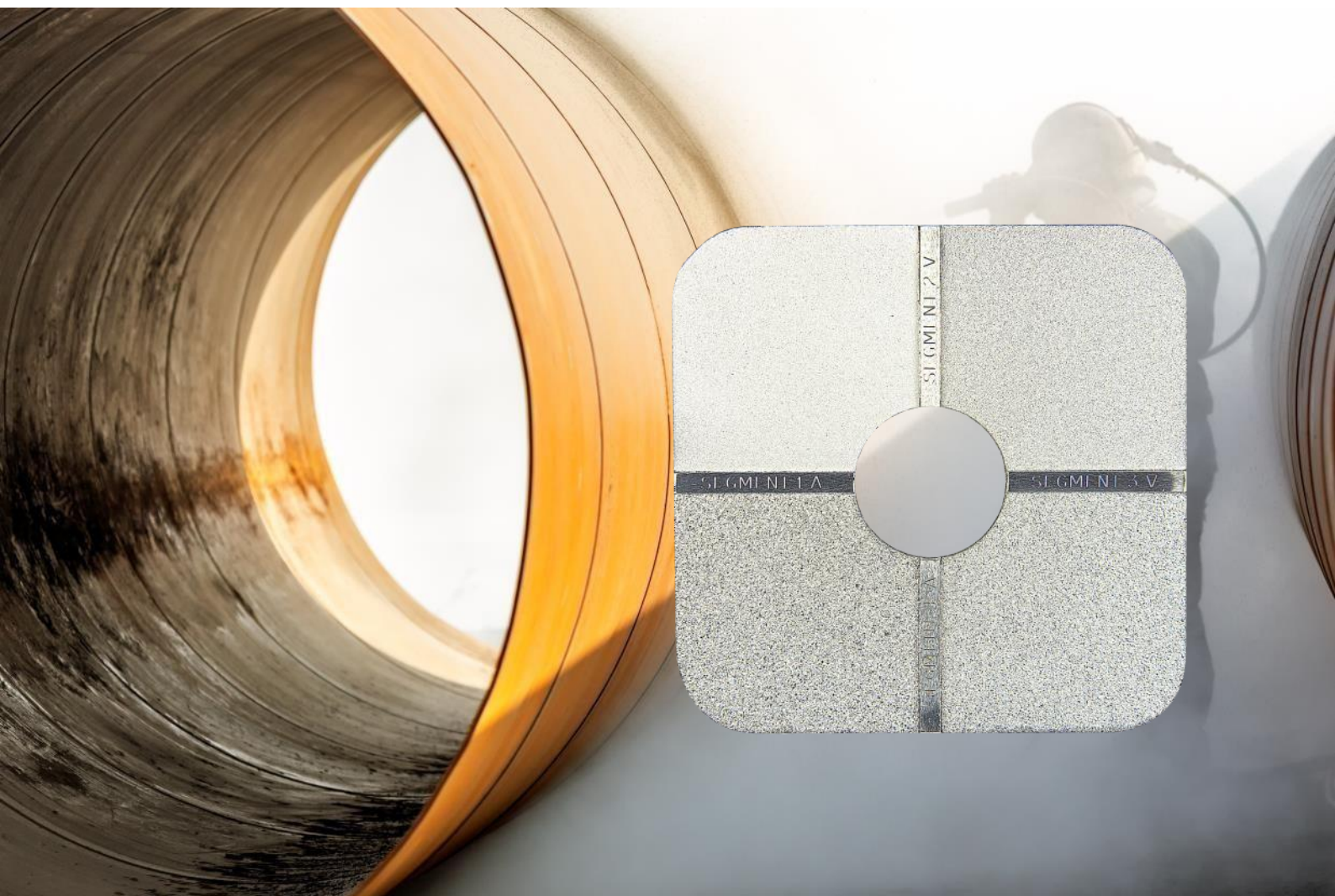


## Roughness Comparator



## Roughness Comparator

A precision nickel Comparator plate for grit and shot-blast surface roughness comparison measurement.



When steel has been blast-cleaned, the surface consists of random irregularities with peaks and valleys that are not easily characterised.

Because of this random nature, experts have recommended that the profile should be identified as either angular (where grit abrasives have been used) or dimpled (where shot abrasives have been used) and that they should be graded as fine, medium or coarse with each grade being defined by limits specified in ISO 8503.

The Roughness Comparator method is applicable to steel surfaces that have been blast-cleaned with either metallic or non-metallic abrasives to grades Sa 2½ and Sa 3.

When a mixture of shot and grit abrasives are used to blast-clean a substrate, the Grit Surface Roughness Comparator should be used.

### Specification

Profile Segment 1: Grit 25µm. Shot 25µm.

Profile Segment 2: Grit 60µm. Shot 40µm.

Profile Segment 3: Grit 100µm. Shot 70µm.

Profile Segment 4: Grit 150µm. Shot 100µm.

### Compliance

ISO 8503-1, ISO 8503-2 and ASTM D4417.

## Supply

The Roughness Comparator is supplied in a protective Wallet.

A X5 Illuminated Magnifier for viewing the Comparator is available as an optional extra.



## Ordering

T01-30375 Roughness Comparator Grit

T01-30376 Roughness Comparator Shot

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## Instructions

### Evaluation

Remove all loose dirt and debris from the test surface.

Select the appropriate surface profile reference Comparator. The Grit Comparator is for Comparing profiles after blast-cleaning with grit abrasives, and the Shot Comparator is for comparing profiles after blast-cleaning with shot abrasives.



Place the selected Comparator against an area of the test surface. Compare in turn the test surface with the four segments of the Comparator, using the Illuminated Magnifier if necessary. If the Illuminated Magnifier is used, place it so that the test surface is viewed simultaneously with a segment of the Comparator.

Assess the profiles on the Comparator that are nearest to the profile of the test surface and determine its grade from the following:

Fine-grade profiles equal to segment 1 and up to but excluding segment 2

Medium-grade profiles equal to segment 2 and up to but excluding segment 3.

Coarse-grade profiles equal to segment 3 and up to but excluding segment 4.

If any profile is assessed as below the lower limit for the fine grading, assess this grading as finer than fine.

If any profile is assessed as greater than the upper limit for the coarse grading, assess this grading as coarser than coarse.

### Care

Never place the Comparator face down on a rough surface. Keep the Comparator in the protective Wallet provided when not in use.

If the Comparator becomes tarnished, wash with a Dilute detergent solution and soft brush and dry with soft tissue.