

Elcometer 1910 PAT^{Handy}™ Adhesion Tester



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Can be used in accordance with:

ASTM D 4541 AS/NZS 1580.408.5
 EN 13144 EN 24624
 ISO 4624 ISO 16276-1
 JIS K 5600-5-7 NF T30-062
 NF T30-606

Standards in grey have been superceded but are still recognised in some industries.

This easy to use, lightweight hydraulic adhesion tester applies an increasing level of pull off force to a dolly adhered to the surface under test simply by turning the handle.

The special test head has self adjusting legs, which ensure that the pull off force is applied perpendicular (90°) to the substrate – even on rough or uneven surfaces.

A wide range of dolly sizes is available in order to meet specific measurement requirements from 8.2mm (0.32") to 70mm (2.76") in diameter. Square dollies are also available.

Depending on the size of the dolly and the application, a dolly adaptor and support ring may also be required.

Adhesion

From the largest man-made structures to the smallest household appliances, most manufactured products have a protective or cosmetic coating. Premature failure of this coating can, at the very least, result in costly penalties or rework.

Adhesion testing during the coating process will quantify the strength of the bond between substrate and coating, or between different coating layers or the cohesive strength of some substrates. Routine testing is also used as part of inspection and maintenance procedures to help detect potential coating failures.

Elcometer offer a highly comprehensive range of Adhesion Gauges designed specifically to meet your requirements. These gauges can be split into three categories:

Cross Hatch / Cross Cut Method
 The coating is cut into small squares, thereby reducing lateral bonding, and the adhesion assessed against ISO, ASTM or Corporate Standards

Pull Off Adhesion Method Tensile Dollies (or stubs)
 are glued to the coating and, once the adhesive has cured, the force required to pull the dolly off the surface is measured.

Push Off Adhesion Method
 Similar to the Pull Off Adhesion Test, a dolly is glued to the coating, once the adhesive has cured, however, the dolly is pushed off the surface by the adhesion gauge.

TECHNICAL SPECIFICATION

Maximum Pull[†]	6.3kN (1416lbf) with testing head supplied
Accuracy	±1% of full scale
Weight of Tester	1250g (45oz)
Case Dimensions	340 x 270 x 80mm (13.4 x 10.6 x 3.1")
Part Number	K0001910M001 Elcometer 1910 PAT ^{Handy} ™ Adhesion Tester
Packing List	Elcometer 1910 PAT ^{Handy} ™ Adhesion Tester, 6.3kN (1416lbf) testing head, crank handle driven pull mechanism, 5 x 20mm (0.79") diameter dollies, cutting tool for 20mm (0.79") diameter dollies, hydraulic cable, carry case with protective interior and calibration certificate.

[†] Maximum pull force is dependent on the testing head used.

ELCOMETER 1910 ACCESSORIES							
Part Number		Dolly Diameter		Range		Part Number	
Pack of 10 Dollies	Pack of 100 Dollies	mm	inches	MPa	psi	Adaptor	Support Ring
KT001910P004	KT001910P204	8.2	0.32	0 – 120	0 – 17300	KT001910P401 ^a	KT001910P108 ^b
KT001910P005	KT001910P205	14.2	0.56	0 – 40	0 – 5800		KT001910P109 ^b
KT001910P006	KT001910P206	20	0.79	0 – 20	0 – 2900		KT001910P110 ^b
KT001910P010	KT001910P210	28.2	1.11	0 – 10	0 – 1470		KT001910P111 ^b
KT001910P012	KT001910P212	50	2	0 – 3.2	0 – 460	KT001910P406 ^a	KT001910P101 ^{a 1} or KT001910P123 ^{a 2}
KT001910P018	KT001910P218	70	2.76	0 – 1.6	0 – 240	KT001910P406 ^a	KT001910P123 ^{a 2}
KT001910P016	KT001910P216	50 x 50	2 x 2	0 – 2.5	0 – 370	KT001910P406 ^a	KT001910P123 ^{a 2}

^a Must be ordered for use with 6.3kN (1416lbf) testing head and the specified dolly size

^b Optional accessory for use with 6.3kN (1416lbf) testing head and the specified dolly size

¹ Standard Support Ring: 50mm (1.97")

² Adjustable Support Ring

Spares & Accessories

Part Number	Description
KT001910P501	Testing Head: 6.3kN (1416lbf)
KT001910P502	Testing Head: 20kN (4496lbf)
KT001910P503	Testing Head: 40kN (8992lbf)
KT001910P116	Cutting Tool for 8.2mm (0.32") Diameter Dollies
KT001910P117	Cutting Tool for 14.2mm (0.56") Diameter Dollies
KT001910P118	Cutting Tool for 20mm (0.79") Diameter Dollies
KT001910P120	Cutting Tool for 28.2mm (1.11") Diameter Dollies
KT001910P122	Cutting Tool for 50mm (2") Diameter Dollies

Related Products



Elcometer 106

Elcometer 106 Pull-Off Adhesion Tester:

Easy to operate and fully portable instrument which provides a numerical value for adhesion. Applications include paint or plasma spray on bridge decking, coatings on steel, aluminium, concrete, etc.



Elcometer 108

Elcometer 108 Hydraulic Adhesion Tester:

Available with an analogue dial or as a digital gauge, the Elcometer 108 is an extremely versatile gauge which can be used for many adhesion requirements. Tests can be undertaken on flat or curved – concave or convex – surfaces.