Megaton Systems (Pty) Ltd T/A
MTEx Laboratories

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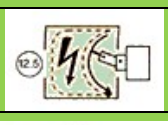
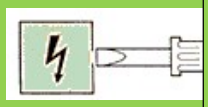
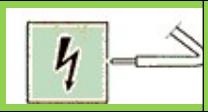
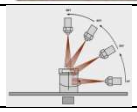
T 0749

Ontploffingvoorkomingstegnologie
Explosion Prevention Technologies

MTEx LABORATORIES
IP TESTING

Scope of Accreditation:
We can test to SANS 60529 as SANAS accredited Laboratory.

First number IP	Protection against solids test	Second number IP	Protection against liquids test
0	No protection.	0	No protection.
1	 Protection against solid objects over 50 mm e.g. accidental touch by hands.	1	 Protected against vertically falling drops of water.
2	 Protection against solid objects over 12 mm e.g. fingers.	2	 Protected against direct sprays of water up to 15° from the vertical.
3	 Protection against solid objects over 2,5 mm (tools & wires).	3	 Protection against sprays 60° from the vertical.
4	 Protection against solid objects over 1 mm (tools, wires & small wires).	4	 Protection against water sprayed from all directions — limited ingress permitted.
5	 Protection against dust — limited ingress (no harmful deposit).	5	 Protection against low pressure jets of water prayed from all directions — limited ingress permitted.
6	 Totally protected against dust.	6	 Protection against strong pressure jets of water e.g. for use on ship decks — limited ingress permitted.
		7	 Protection against the effects of temporary immersion between 15 cm and 1 m. Duration of test 30 min.
		8	 Protection long periods of immersion under pressure
		9	 High pressure and temperature jet.

What SIZE sample can we test, refer to the back of this page:

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Website: www.mtexlab.co.za

mineral resources
Department:
Mineral Resources
REPUBLIC OF SOUTH AFRICA
AIA Number: E1

employment & labour
Department:
Employment and Labour
REPUBLIC OF SOUTH AFRICA
AIA Number: CL016

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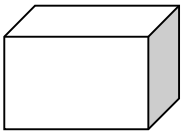
For IP5X and IP6X we can test samples with dimensions of up to:

1000mm (w) x 2300mm(l) x 1100mm(h)



With a weight limitation of about **200kg**

Our dust tank is easy to load and therefore minimises chances of damage to the sample from handling. The dust has average sized particles of 40µm.

We can do Category 1 and 2 testing.

Please contact for IPX7 and IPX8 sample sizes, our tanks can accommodate various samples and depts.

Common Pitfalls with IP Enclosures:

Seals must be compressed, well seated and have good memory properties.	
Seals must be continuous.	

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Fasteners must secure the covers.		
Fasteners should be located outside the seal, i.e. where possible have the seal on the "inside" of the enclosure from where the fasteners are. **Threads on fasteners and threaded joints are likely to leak.**		 
Ensure the washer or sealing O-ring is present around shafts and operators that penetrate the enclosure.		

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Most "off the shelve IP-rated" sockets and plugs require to be plugged in or have a seal cap i.e. the enclosure might leak when other devices are plugged in, like USB connections to a USB memory stick.	
It is worth conducting additional high humidity tests in addition to the SANS 60529 tests.	

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Cable must be well filled to prevent ingress.	
Provisions for cable glands must be made to the correct size and must be round.	
<u>Manually</u> applied silicone and other adhesive sealants typically do not form adequate seals. **But some "machined" sealants are absolutely great.**	

Ensure all enclosures manufactured is inspected as part of a quality "batch" inspection/testing.

Use independent Laboratories to conduct the testing.

Independent IP testing of your product will give you the edge.

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