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STHOLARS		PLO	LABS			7 Spanner	Rd / PO Bo Olifantsf	ox 467 ontein 1665		
ST		Explosion Preve	ention Services	(Pty) Ltd		Tel: +2 Fax: +2	27 (11) 316 27 (11) 316	5 4601 5 5670		
OLA	Rea	No: 1999/027771/0)7			E-mail: <u>admin-mgr@</u>	explolabs	.co.za		
		G	OVERNMEN	APPROVED 1	FEST LA	BORATORY		10 		
MOIN	IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"									
SIMO						Date Issued: *Expiry date:	19 Mar 26 Jan	2024 2027		
							Page '	1 of 5		
3	Ex – Type	e Examinatio	n Certificate				155	oue. z		
Plou	Certificate Number: S-XPL/21.0014 X									
Ð	Equipment	: no:	Cable Glan	Cable Glands and Plugs						
S	Applicant: CMP Products Limited									
OL.	••		Glasshous	e Street				Control of		
9 9			St Peters							
NO			Newcastle	Upon Tyne						
			NE6 1BS	ndom						
8	Manufactu	rer:	CMP Produ	cts Limited						
Plot	Serial No:		All serial nu	imbers imported	between	issued- and expire dat	e and all	serial		
P			numbers co	vered by a valid r	eport or a	acceptable product certil	lication ma	ark. 🧃		
S				Supplied by	v					
01				CMP Products L	imited					
(Identified	by Inspection Au	uthority nu	umber				
OIN				3-APL/21.001	4 ۸			Contraction of the second		
	And as des	cribed in the Ex	cololabs file nur	nber XPL/21804	/21.0014	is hereby certified "Exp	losion Pro	otected		
2	(Refer to cla requirement	ause 1, for Ex	<u>Rating)"</u> , having an Standards.	g been examined	d and ins	pected in accordance v	with the re	elevant		
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9 9	SANS 6007	'9-0: 2019 Ed 6	Explosive a	atmospheres Part	t 0: Equip	ment — General require	ements			
NO	SANS 6007	0:2017 EQ 7 19-7:2023 Ed 4		atmospheres Par	t 7. Equir	oment protection by inc	rased es	afoty		
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2	SANS 6007	9-15: 2022 Ed	5 Explosive a	atmospheres Part	t 15: Equi	pment protection by type	e of protec	ction		
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NUC	Risk of igniti	ion provided:			T		1			
9	Protoction	Equipment Protection	Der	formance of			T class o	or Max		
OIM	afforded	Level (EPL)	Per	protection		Conditions of operation	Surfa	ice		
		Group	0	blo for some -!			remp			
8			Suita operatio	on and frequently		Equipment remains		(Senter)		
JOU	High	GD Group II	occurring dist	urbances or equipn	nent fu	unctioning in zones 1 and	Not Appl	licable 🧃		
Ş			where faults a	are normally taken account	into	2				
ST		Da	Two independer	it means of protection or		Equipment remains				
DOL	Very high	Group III	safe even v	vhen two faults occ	ur	functioning in zones 20, 21 and 22	Not Appl	licable		
P		<u> </u>	паерена	entry of each other						
NASS	Enhanced	Group II	Suitable for	or normal operation	n	functioning in zone 2	Not Appl	licable		
OIL						-	<u> </u>			
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GENERAL

The marking of the Cable Glands and Plugs shall include the following: Ex eb IIC Gb Ex ta IIIC Da Ex nR IIC Gc -60°C ≤ Ta ≤ +105°C (TSMe, TSXe & TSZe glands and TruSeal Plug) -60°C ≤ Ta ≤ +95°C (TSPe & TSPi glands) IP66 IP67 IP68 (30 m for 16 hours) IP69 IP69K

The TruSeal Range of Cable Glands comprises the TSMe, TSPe, TSPi, TSXe & TSZe models which allow circular unarmoured cable or braided/screened cable to enter associated enclosures to which they are fitted (as defined by their coding) without compromising the explosion protection that it provides. Alternatively, a TruSeal Plug can be used within one of the TruSeal Gland models above to provide Ingress Protection where the cable gland is not required. They are manufactured from the following component parts:

TSMe models

- Metallic entry item hexagonal in form which is threaded at both ends: one being a male metric or NPT thread used to secure the entry item to the associated enclosure; the other being for the fitting of the outer seal nut.
- Plastic finger insert which is located within the entry item which, when displaced by tightening the outer seal nut displaces the sealing ring(s).
- Elastomeric sealing rings which may be: single; dual inner; dual outer which, when displaced by the outer seal nut and finger insert secures the incoming cable, along with providing 'sealing' and ingress protection.
- Outer seal nut, domed in form with a hexagonal shoulder towards its base and with a female thread which engages with the entry item and upon tightening displaces the finger insert and consequently sealing ring(s) onto the cable.

TSXe models

- As the TSMe models with the following additional parts:
- Metallic EMC cone and ring which are located within the entry item to accommodate the screen or braid of the incoming cable.
- Elastomeric bore seal located between the EMC ring and finger insert.

TSZe models

As the TSMe models with the following additional part:

 Metallic EMC spring insert located between the finger insert and entry item for the attenuation of electrical interference.

TSPe & TSPi models

- Plastic entry item hexagonal in form which is threaded at one end with a male metric or NPT thread used to secure the entry item to the associated enclosure; the other being partially threaded for the fitting of the outer seal nut and which has a moulded finger insert feature which, when displaced by the outer seal nut displaces the sealing ring(s).
- Elastomeric sealing rings which may be: single; dual inner; dual outer which, when displaced by the outer seal nut and finger insert secures the incoming cable, along with providing 'sealing' and ingress protection.
- Outer seal nut, hexagonal in form with a female thread which engages with the entry item and upon tightening displaces the fingered feature and consequently sealing ring(s) onto the cable.

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The cable gland and sealing ring sizes are determined by the entry thread and cable range take sizes:

	Entry Thread		Cable outer sheath Ø					
Gland Size	Standard (Metric)	Standard (NPT)	Single Seal (Min.)	Single Seal (Max.)	Dual Inner (Min.)	Dual Inner (Max.)	Dual Outer (Min.	Dual Outer (Max.)
12	M12x 1.5	1⁄4"	3.0	6.5	-	-	-	-
16	M16x 1.5	3/8 "	3.0	7.0	3.0*	7.0	6.0	10.0
20	M20x 1.5	1/2 "	5.0	10.0	5.0**	10.0	9.0	14.0
25	M25x 1.5	3/4"	9.0	15.5	9.0	15.5	12.5	18.0
32	M32x 1.5	1"	12.5	19.0	12.5	19.0	17.0	25.0
40	M40x 1.5	1 1⁄2 "	19.0	27.0	19.0	27.0	24.0	32.0
50	M50x 1.5	2"	22.0	32.0	22.0	32.0	28.0	38.0
63	M63x 1.5	2 1/2"	28.0	39.0	28.0	39.0	37.0	48.0

All cable outer sheath dimensions in mm

* For the TSPe & TSPi size 16 gland, the minimum dual inner cable outer sheath dimension is 3.2 mm

** For the TSPe & TSPi size 20 gland, the minimum dual inner cable outer sheath dimension is 5.5 mm

Design Options

The front threaded entry item may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face of the associated enclosure.

The front threaded entry item may be manufactured with any larger entry thread form size from the sizes certified.

The front threaded entry item may be manufactured with an alternative nearest equivalent recognised thread type and size to the metric thread sizes certified.

The TruSeal Range of Cable Glands may be supplied with a Transit Disc.

Materials of manufacture:

The TSMe, TSZe & TSXe Cable Gland ranges are manufactured in brass, stainless steel & mild steel. All brass manufactured component parts can be optionally nickel plated. All mild steel manufactured components can be optionally zinc plated

The TSPe & TSPi Cable Gland ranges are manufactured in polyamide. The TruSeal Plug is manufactured in a Silicone Rubber.

Examples of alternative entry component thread forms:

ET (Conduit) PG BSPP BSPT ISO NPSM NPT

TruSeal Plug Models

There are three model types (A, B and C), that are suitable for the different sealing arrangements within the cable gland range, shown in the table below;

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Gland Size	Truseal Plug Model
12	A
16S/16DI	В
16	С
20S / 20DI	В
20	С
25S /25DI	В
25	С
32S / 32DI	В
32	С
40S / 40DI	В
40	С
50S / 50DI	В
50	C
63S/63DI	В
63	C

Based on the following documentation: IECEx CML 19.0062X. Issue 2.

INSTALLATION INSTRUCTIONS

It is the manufacturer's responsibility to supply installation instructions with each unit offered for sale as required by IEC/SANS 60079-0 Clause 30.

SPECIAL CONDITIONS FOR SAFE USE (denoted by "X" after certificate number)

The following are Specific Conditions of Use.

- The TruSeal TSPe & TSPi M12 & M16 Cable Glands have been tested to a mechanical impact of 4 J and therefore shall only be installed where the risk of mechanical impact is low.
- ii. The TruSeal Range of Cable Glands are only suitable for fixed installations. The end user shall provide suitable additional clamping of the cable to ensure that pulling is not transmitted to the terminations.
- When a TruSeal M12 TSPe Cable Gland is installed where its service temperature exceeds +75°C, it shall be mounted such that it is adequately protected against the risk of mechanical impact.
- iv. For TSPe & TSPi sizes M40, M50 & M63 Under certain extreme circumstances may be a potential electrostatic charging hazard, clean only with a damp cloth.

SCHEDULE OF LIMITATIONS (denoted by "U" after certificate number) None

CONDITIONS OF CERTIFICATION

All production units must be covered by a QAN (Quality Assurance Notification), Product Mark Scheme or batch evaluation.

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OIMS	PIOLAS GRIOLAS ANNEX TO CERTIFICATE NO S-XPL/21.0014 X PAGE 5 OF 5						
	MARKING The following (or similar) information have to be clearly and permanently marked on all units:						
	Supplier : CMP Products Limited Manufacturer : CMP Products Limited						
MOIN	Equipment : Cable Glands and Plugs Model/Type : TSMe, TSZe, TSXe, TSPe, TSPi, and TruSeal Plug Serial No. :						
STIOLAS	Ex Rating : Ex eb IIC Gb Ex ta IIIC Da Ex nR IIC Gc -60°C < Ta < +105°C (TSMe, TSXe & TSZe glands and TruSeal Plug)						
STIOLAS	$-60^{\circ}C \le Ta \le +95^{\circ}C$ (TSPe & TSPi glands) IP66 IP67 IP68 (30 m for 16 hours) IP69 IP69K						
97 90	IA Certificate No : S-XPL/21.0014 X						
	is certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided at the apparatus is used as relevant in accordance with:						
SIMO	Any conditions mentioned in the above report; Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and						
F.	 Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety. A revision certificate replaces all previous version of the certificate. 						

* - Only covers equipment Imported between the "Issued" and "Expire" dates.

If and when your QAN (Quality Assurance Notification) Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted the existing IA Certification will then be cancelled. It is thus the client's responsibility to always submit the updated and valid QAN certificate(s) to Explolabs (Pty) Ltd.

Responsible Testing Officer:

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D Maree Technical Specialist EXPLOLABS EXPLOSION PREVENTION SERVICES

This report/certificate shall not be reproduced except in full without the written approval of the company Explolabs (Pty) Ltd shall not be liable for any losses or damages sustained on account of any failure or omission to properly perform our duties in terms of any contract undertaken by us. This disclaimer is immutable and automatically incorporated in any contract undertaken by us; notwithstanding anything to the contrary, save for the express written waiver of our managing director. By marking the equipment in accordance with the documentation/standard, the manufacturer attests on his own responsibility that the equipment has been constructed in accordance with the applicable requirements of the relevant standards and that the routine verifications and tests have been successfully completed and that the product complies with the documentation and standard(s). The contents of electronic reports/certificates cannot be guaranteed. Original certification documents will be kept on file at Explolabs (Pty) Ltd