

# TEST REPORT

**Applicant** : Shandong Tengxin Seal Co., Ltd.  
**Address** : South Of Haier Hope Primary School, Magutai Village, Xuyuanzi Township,  
Qingyun County, Dezhou City, Shandong province

**Report on the submitted sample said to be:**

**Sample Name** : cable seal  
**Trade Mark** :   
**Model(s)** : TXCS  
**Manufacturer** : Shandong Tengxin Seal Co., Ltd.  
**Address** : South Of Haier Hope Primary School, Magutai Village, Xuyuanzi Township,  
Qingyun County, Dezhou City, Shandong province  
**Test Conclusion** : Based on the performed tests on submitted samples, the results of Lead,  
Mercury, Cadmium, Hexavalent chromium, Polybrominated biphenyls  
(PBBs), Polybrominated diphenyl ethers (PBDEs), Bis (2-ethylhexyl)  
phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), Di  
Iso Butyl Ortho Phthalate (DIBP) comply with the limits as set by RoHS  
Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU.  
**Testing Period** : Jun. 09, 2023 to Jun. 16, 2023  
**Date of Report** : Jun. 16, 2023

Testing Requested:	Results
Selected test(s) as requested by client	Pass

Prepared by:

*Trudie*

Trudie

Examine By:

*Calvin Chen*

Calvin Chen

Approved/Manager:

*Michael Mo*

Michael Mo



**Testing method:**

1. With reference to IEC 62321-1:2013, review was performed for the samples disjointed from the submitted articles submitted by the Applicant
2. Tests were performed for the samples indicated by the photos in the report with test methods reference to IEC 62321-1:2013, Procedures for the determination of Levels of Six regulated Substances in Electrotechnical Products
  - (1) With reference to IEC 62321-3-1:2013, Screening by XRF Fluorescence Spectrometry
  - (2) Wet Chemical Test Method
    - a. With reference to IEC 62321-5:2013, Determination of Lead & Cadmium by ICP-OES or AAS
    - b. With reference to IEC 62321-4:2013+A1:2017, Determination of Mercury by ICP-OES
    - c. With reference to IEC 62321-7-1:2015 and IEC 62321-7-2:2017, Determination of Hexavalent Chromium by Spot or Colorimetric Method
    - d. With reference to IEC 62321-6:2015, Determination of PBBs and PBDEs by GC-MS
    - e. With reference to IEC 62321-8:2017, Determination of DEHP, DIBP, DBP and BBP by GC-MS

Note: The test results are related only to the tested items. The report shall not be reproduced except in full without the written approval of the testing laboratory.

Part No.	Part Description	Restricted Substance	Results of EDXRF	Result of wet Chemical Testing (2mg/kg)	Conclusion on RoHS
1	Steel wire rod	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(VI)	BL	-	Comply
		Br	-	-	-
		DEHP	-	-	-
		BBP	-	-	-
		DBP	-	-	-
		DIBP	-	-	-
2	Metal joint	Pb	BL	-	Comply
		Cd	BL	-	Comply
		Hg	BL	-	Comply
		Cr(VI)	BL	-	Comply
		Br	-	-	-
		DEHP	-	-	-
		BBP	-	-	-
		DBP	-	-	-
		DIBP	-	-	-



**Remark:**

- (1) (a) It is the result on total Br while test item on restricted is PBBs\PBDEs. It is the result on total Cr6+ while test item on restricted substances is Cr6+.
- (b) Results are obtained by EDXRF for primary screening ,and further chemical testing by ICP(for Cd, Pb, Hg), UV-VIS(for Cr6+) and GC\MS (for PBBs, PBDEs) is recommended to be performed , if the concentration exceeds the below warning value according to IEC62321(unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$BL \leq (70-3\sigma) < X < (130+3\sigma) \leq OL$	$LOD < X < (150+3\sigma) \leq OL$
Pb	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Hg	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (700-3\sigma) < X < (1300+3\sigma) \leq OL$	$BL \leq (500-3\sigma) < X < (1500+3\sigma) \leq OL$
Br	$BL \leq (300-3\sigma) < X$	--	$BL \leq (250-3\sigma) < X$
Cr	$BL \leq (700-3\sigma) < X$	$BL \leq (700-3\sigma) < X$	$BL \leq (500-3\sigma) < X$

(c)BL=Below Limit, OL=Over Limit, IN=Inconclusive, LOD=Limit of Detection, -=Not Regulated,

Negative = A negative test result indicated above positive observation was not found at the time of testing. When the spot-test showed a negative result, the boiling-water-extraction procedure shall be used to verify the result.

(#1) = As claimed by the declaration submitted by the client, the Lead content of the components is coming from the constituent of ceramic part of the electronic component only. According to EU RoHS Directive, Lead in electronic ceramic parts of this component can be exempted.

(d)The XRF screening test for RoHS elements-The reading may be different to the actual content in the sample be of non-uniformity composition,

(2) (a) mg/kg=ppm=0.0001%, ND=Not Detected(<MDL)),

(b)Unit and Method Detection Limit(MDL)in wet chemical test

Test Items	Units	MDL	EU RoHS Limit
Pb	mg/kg	2	1000
Cd	mg/kg	2	100
Hg	mg/kg	2	1000
Cr(VI)	mg/kg	0.02 mg/50 cm <sup>2</sup> (Metal)	1000
		2	
PBBs	mg/kg	5	1000
PBDEs	mg/kg	5	1000
DEHP	mg/kg	5	1000
BBP	mg/kg	5	1000
DBP	mg/kg	5	1000
DIBP	mg/kg	5	1000

(c) According to IEC 62321, result on Cr for metal sample is shown as Positive\Negative, Negative=Absence of Cr6+ coating, Positive=Prosenace of Cr 6+ coating.

(d) ▲As declared by the client the materials fall into exemption items according to RoHS Directive 2011\65\EU recasting 2002\95\IEC

**Photograph of sample**

POCE authenticates the photo on original report only



Photo 1



Photo 2

\*\*\*\*\*END OF REPORT\*\*\*\*\*