

Restricted Substances Test Protocol for XERO SHOES (EU & US Market)

Test Item	Test Method	Recommended requirement	Finished shoe	Leather	Natural textile	Synthetic textile	Plastics & other synthetic materials: PU, PVC, Rubber, TPU, TEP, EVA etc	Metal	Coating/ Printing/ Ink	Adhesive
AZO dyes	Textile: EN 14362-1 Leather: ISO 17234-1 (4-aminoazobenzene): Textile: EN 14362-3 Leather: ISO 17234-2	30mg/kg		●	●	●			●	
Phthalates	CPSC-CH-C1001-09.4	13P:1000mg/kg (each and sum)					●		●	●
Organotin Compounds	ISO 17353	0.1% by weight of tin		●	●	●	●		●	●
Total Cadmium	Metal: In house method Non-metal & Coating: In house method Plastic: EN 1122	Plastic, metal in Jewelry: 100 mg/kg Surface coating/paint on article: 1000 mg/kg					●	●	●	●
Total Lead	Metal: CPSC-CH-E1001-08.3 Non-metal: CPSC-CH-E1002-08.3 Coating: CPSC-CH-E1003-09.1	100 mg/kg (substrate) 90 mg/kg (surface coating)		●			●	●	●	●
Chromium VI	ISO 17075 with aging	3mg/kg		●						
Nickel release	Coated Item: EN 12472:2005+A1:2009 & EN 1811:2011+A1:2015. Non-coated Item: EN 1811:2011+A1:2015.	Direct and prolong contact with skin: 0.5 µg/cm ² /week						●		
PAHs	AfPS GS 2014:01 PAK.	0.5 mg/kg (each) for children; 1.0 mg/kg (each) for others					●		●	
Short chain chlorinated Paraffin (SCCP)	ISO 18219	0.15%		●			●		●	●
Dimethyl Fumarate (DMFu)*1	Textiles: EN17130:2019 Others: ISO/TS 16186:2012	0.1mg/kg		●	●	●	●			
PFOS/PFOA*2	CEN/TS 15968/ISO23702-1	PFOS: 1ug/m2(semi-finished products or articles); (textiles or other coated materials) ; PFOA and its salts: 0.025mg/kg ; PFOA related substances: 1mg/kg		●	●	●	●			
Flame Retardants*3	In house method	PBB/TRIS/TEPA: n.d. TetraBDE, PentaBDE, HexaBDE, HeptaBDE: 10mg/kg OctaBDE: 1000mg/kg HBCDD: 100mg/kg DecaBDE: 1000mg/kg			●	●	●			
Pentachlorophenol (PCP)	Textile: Modified 64 LFGB BVL B82.02.8 with alkaline digestion leather:ISO17070	Prohibited		●	●		●		●	
AP/APEO	18254-1:2016(Textiles), ISO18218-1:2015(Leather)Solvent extraction, GC-MS or LC-MS analysis(polymer)	NP: 1000mg/kg NPEO: 1000mg/kg (limit: 100mg/kg for NPEO ,effective date:3 February 2021)		●	●	●	●		●	●

Heavy Metals in Packaging	In house method	Pb, Cd, Cr VI, Hg: 100 mg/kg (each)		●	●	●	●		●	
Extractable heavy metal	EN16711-2:2015	1mg/kg (each)			●	●	●		●	
Formaldehyde	Textile:ISO14184-1	75mg/kg			●	●	●		●	
Polycyclic Aromatic Hydrocarbons (PAHS)	AFPS GS 2019:01 PK	1mg/kg (each)				●	●		●	
Chlorotoluenes	EN17137:2018	1mg/kg (each)				●	●		●	
Disperse Dyestuff	DIN 54231:2005	50 mg/kg (each)				●	●		●	
Arylamine salts	Textile: EN ISO14362-1:2017 EN ISO14362-3:2017	30mg/kg			●	●	●		●	
Solvents/VOCs	Din Cen TS/ISO 16189:2013	NMP/DMAC/DMFa:3000 mg/kg(each)					●		●	
Benzene	In house method	5mg/kg					●		●	
Quinoline	DIN54231:2005	50mg/kg				●	●		●	
SVHC	In house method	0.1% WW each	●							
*1 Only for material treating by anti-mold/anti-bacteria										
*2 For material with water proof/ repellant treatment										
*3 For the Product with antifiaming treatment										