

PUMA RSL Test Matrix Version 3.2021	Leather			Textiles			Polymers, Plastics				Prints	Coatings	Metal	Paper	Others
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
For CAS-numbers, details on included substances, test methods and limit values, please see AFIRM RSL (http://afirm-group.com/afirm-rsl/)	Natural Leather	PU Coated Leather	Artificial Leather (PU synthetic with textile backing)	natural fibers e.g. cotton, wool, linen	mixed fibers e.g. cotton/polyester	synthetic fibers e.g. polyester, polyamide, polyacrylonitrile	EVA	PU (elastomers, foam, TPU, etc)	Rubber	Other plastics or polymers (polycarbonates, PE, PP, etc)	prints, inks	coatings, coated textiles, coated paper	metal parts (if coated or printed, include tests from column K and L)	paper, cardboard (if printed or coated, include column K or L)	Porcelain, Ceramics, Glass, Crystal, etc.
Must use PUMA RSL DB in all tests.															
Refer to the RSL DB User Manual for specific material Test Packages, i.e. chemicals to be tested per type of material (e.g. labels, shoelace, zipper, insock, etc).															
1 Acetophenone and 2-Phenyl-2-Propanol							X								
2 Acidic and Alkaline Substances (pH)	X	X	X	X	X	X									
3 Alkylphenols (APs) + Alkylphenol Ethoxylates (APEOs) + including all isomers	X	X	X	X	X	X	X	X	X	X	X	X			
4 Azo-amines and Arylamine Salts	X	X	X	X	X	X					X	X			
5 Bisphenols + (food and mouth contact materials)							X	X	X	X					
6 Short-chain Chlorinated Paraffins (SCCP)	X	X	X				X	X	X	X	X				
7 Medium-chain Chlorinated Paraffins (MCCP)	X	X	X				X	X	X	X	X				
8 Chlorophenols (PCP, TeCP, TriCP)	X	X		X	X	X									
9 Chlorinated Benzenes and Toluenes			X		X	X									
10 Dimethylfumarate (DMFu)	X	X													
11 Dyes, Forbidden and Disperse			X		X	X					X	X			
12 Flame Retardants ²				X	X	X	X	X	X	X	X	X			X
13 Formaldehyde	X	X	X	X	X	X			X		X	X			
14 Heavy Metals - extractable															
Antimony (Sb)	X	X	X	X	X	X	X	X	X	X	X	X			
Arsenic (As)	X	X	X	X	X	X	X	X	X	X	X	X			
Barium (Ba)			X		X	X									
Cadmium (Cd)	X	X	X	X	X	X	X	X	X	X	X	X	X		
Chromium (Cr)			X	X	X	X	X	X	X	X	X	X			
Chromium VI (Cr VI)	X	X		X	X	X									
Cobalt (Co)	X	X	X	X	X	X	X	X	X	X	X	X	X		
Copper (Cu)	X	X	X	X	X	X	X	X	X	X	X	X			
Lead (Pb)	X	X	X	X	X	X	X	X	X	X	X	X	X		
Mercury (Hg)	X	X	X	X	X	X	X	X	X	X	X	X	X		
Nickel (Ni)	X	X	X	X	X	X	X	X	X	X	X	X	X		
Nickel (Ni) - release (in metal parts)													X		
Selenium (Se)	X	X	X	X	X	X	X	X	X	X	X	X			
15 Heavy Metals - total digestion															
Arsenic (As)	X	X		X	X										
Cadmium (Cd)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lead (Pb) ³	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mercury (Hg)	X	X	X	X	X	X	X	X	X	X	X	X	X		
16 Heavy Metals in Packaging (Cd, Cr VI, Pb, Hg) = 100 mg/kg														X	
17 Monomers (Styrene; Vinyl Chloride)		X	X						X		X	X			
18 N-Nitrosamines									X						
19 Organotin Compounds	X	X	X		X	X		X	X	X	X	X			
20 Ortho-Phenylphenol	X	X	X	X	X	X									
21 Per- and Polyfluorinated Chemicals (PFCs) ⁴	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
22 Pesticides, Agricultural															
23 Phthalates		X	X				X	X	X	X	X	X			
24 Polycyclic Aromatic Hydrocarbons (PAHs)		X	X				X	X	X	X	X	X			
25 Quinoline			X		X	X									
26 Solvents/Residuals (DMFa, DMAC, NMP, Formamide, etc.)		X	X				X	X			X	X			
27 UV Absorbers/Stabilizers							X	X	X	X					
28 Volatile Organic Compounds (VOCs)		X	X				X	X	X	X	X	X			

¹ PVC is not allowed to be used in any material or product. Supplier must declare PVC-free at first time approval of a material.

² Only if treated with flame retardant finish (finish must be approved by PUMA)

³ Crystal is exempt for Lead

⁴ PUMA policy does not allow the use of PFCs since end 2017. If water repellent is applied, follow PFC-Free testing SOP. However, PFOS and PFOAs and related substances are required to be tested even if no water repellent is applied.

Additional testing criteria for specific product types and other trims and components can be found in below table (and in PUMA RSL DB User Manual):

Product Type	Examples	Testing requirements
Electronics	headphones, LED packs, others	Electronics products usually contain metal parts and polymers/plastics, coatings. Therefore, please refer to those columns in the testing matrix and test according to all contained materials.
Chemicals	liquid chemicals, cleaning agents, cement, glues, primers	Chemicals must be compliant to the ZDHC MRSL. Tests program is also available and must be done via the CInsight Database based on ZDHC MRSL limit values and test methods. Link to ZDHC MRSL - http://www.roadmaptozero.com
Trims and components in combined material composition	yarn, shoelace or drawcord, thread, sockliner, zipper, plastic shoe bottom parts with textile cover	Test according to material composition e.g. natural/synthetic fibers, polymers/plastic, PU, metals, etc. If a trim or component contains different material types, perform test for all types according to the applicable column in the test matrix. Example: shoelace or drawcord - test textile part in Column E and the plastic tip in Column J Refer to RSL DB manual for Additional Test Matrix

Please send an email to RSL@puma.com in case of questions or comments.