

SAFEGUARDS

CONSUMER GOODS AND RETAIL

SOFTLINES

NO. 189/14 NOVEMBER 2014

TAIWAN - FOOTWEAR STANDARDS FOR LEATHER SHOES

With increased consumer goods compliance inspections launched by Taiwan's Bureau of Standards, Metrology and Inspection (BSMI), consumers are becoming more conscious about their health and the safety of the daily necessities that they use. A good quality pair of shoes is an indispensable part of our life. BSMI has introduced a number of technical standards concerning the safety of footwear products. Two of these voluntary standards are Chinese National Standards – CNS 10632¹ and CNS 8634², which indicate the basic chemical and quality requirements of leather shoes in the Taiwan market.

CNS 10632 (Leather Shoes) applies to shoes with leather vamp materials and for general leather shoes with combined sole and heel, but excluding those with a single shoe sole. CNS 8634 (Leather Casual Shoes) applies to leather casual shoes that use rubber or plastics as the shoe sole and leather as the shoe vamp (area of leather on shoe vamp is more than 50%), including those with a single shoe sole. Both CNS standards cover hazardous substances requirements (see Table 1), as well as physical performance requirements (see Table 2).



TABLE 1 – CHEMICAL REQUIREMENTS FOR CNS 10632 & CNS 8634

ITEM	REQUIREMENT	TEST METHOD
Azo dyes (in upper materials and lining materials)	n.d. (<30 mg/kg)	CNS 15204
Phthalates (in foamed plastic outsole)	DEHP+DBP+BBP+ DINP+DIDP+DNOP < 0.1% (w/w)	CNS 15138
Cr(VI) (in upper materials and lining materials)	n.d. (<3 mg/kg)	CNS 15331 annex A
Dimethyl Fumarate	< 0.1 mg/kg	CNS 15331 annex B

¹ [CNS 10632](#)

² [CNS 8634](#)

TABLE 2 – PHYSICAL REQUIREMENTS FOR CNS 10632 & CNS 8634

TEST ITEMS		REQUIREMENTS						METHOD
		HARD RUBBER	SOFT RUBBER	FOAMED RUBBER	FOAMED PLASTICS	SYNTHETIC RESIN	RUBBER FOR DIRECT VULCANIZATION MOLDING AND INJECTION MOLDING	
CNS 8634 LEATHER CASUAL SHOES								
Outsole/Heel	Hardness	> 85	< 85	—	—	> 60	> 60	CNS 3555 (A Type)
	Tensile strength	> 10 Mpa	> 13 Mpa	> 3.5 Mpa	> 3.5 Mpa	> 6.9 Mpa	> 10 Mpa	CNS 3553 (Type 2)
	Elongation	> 150 %	> 300 %	—	> 300 %	> 200 %	> 200 %	CNS 3553 (Type 2)
	Tear strength	> 300 N/cm	> 300 N/cm	—	> 150 N/cm	—	> 300 N/cm	CNS 3559
	Oil resistance (volume change)%	< 35%	< 35%	—	—	—	< 35%	CNS 3562 (No.3)
Upper	Thickness	> 0.6 mm						CNS 1353/2054
	Crack	120N no crack						CNS 7701
	Moisture permeation	> 3.0 mg/cm ² .h						CNS 7704
	Rubbing Color fastness	> rating 2						CNS 1273/ CNS 8429
Lining	Thickness	> 0.6 mm						CNS 1353/2054
	Moisture permeation	> 3.0 mg/cm ² .h						CNS 7704
	Rubbing color fastness	Dry > rating 4 Wet > rating 3						CNS 1273/ CNS 8429
	Sweat color fastness	> rating 2						CNS 1496/ CNS 8429
Whole shoes	Peel strength	> 100 N/25mm > 39 N/cm (peel claw length < 25mm) Vulcanization shoes: > 150 N/25mm > 59 N/cm (peel claw length < 25mm)						CNS 3479 - 2.17

CNS 10632 LEATHER SHOES								
Outsole/Heel	Hardness	> 85	< 85	---	---	---	> 60	CNS 3555 (A Type)
	Tensile strength	> 10 Mpa	> 13 Mpa	> 3.5 Mpa	> 3.5 Mpa	---	> 6.9 Mpa	CNS 3553 (Type 2)
	Elongation	> 150 %	> 300 %	---	> 300 %	---	> 200 %	CNS 3553 (Type 2)
	Tear strength	> 300 N/cm	> 300 N/cm	---	> 150 N/cm	---	---	CNS 3559
	Oil resistance (volume change)%	< 35%	< 35%	---	---	---	---	CNS 3562 (No.3)
Upper	Thickness	Type of leather		Men's shoes	Women's shoes	Children's shoes		CNS 1353/ 2054
		Cow leather	Calf	> 0.7	> 0.6	> 0.6		
			Kip	> 0.9	> 0.8	> 0.7		
			Cow or steer	> 1.1	> 1.1	> 1.0		
		Horse leather	Cordobam	> 1.5	—	—		
			others	> 1.2	> 1.0	> 1.0		
		Pig leather	> 1.0	> 1.0	> 1.0			
	Sheep leather, and others	> 0.6	> 0.6	> 0.6				
	Crack	Men's shoes : >150N no crack, Women's / Children's shoes: >120N no crack						CNS 7701
	Moisture permeation	> 3.0 mg/cm ² .h						CNS 7704
Rubbing color fastness	> rating 2						CNS 1273/ CNS 8429	
Lining	Thickness	> 0.6 mm						CNS 1353/ 2054
	Moisture permeation	> 3.0 mg/cm ² .h						CNS 7704
	Rubbing color fastness	Dry > rating 4 Wet > rating 3						CNS 1273/ CNS 8429
	Sweat color fastness	> rating 2						CNS 1496/ CNS 8429
Whole shoes	Peel strength	Men's shoes > 150 N/25mm Women's / Children's shoes > 100 N/25mm peel claw length < 25mm : Men's shoes > 59 N/cm, Women's / Children's shoes > 39 N/cm						CNS 3479 -2.17

Both our Taiwan SGS Kaohsiung Chemical lab and Taichung Footwear Physical lab have full capability to perform quality tests on leather shoes in accordance with the CNS requirements.

SGS Global Softlines has an extensive network of over 40 laboratories worldwide, with a strong team of committed professionals from multi-disciplinary backgrounds. Our internationally accredited state-of-the-art testing laboratories offer a comprehensive range of physical, chemical and functional testing services for components, materials and finished products. We help your company ensure quality, performance and compliance with international, industrial and regulatory standards worldwide. Discover more at www.sgs.com/en/Consumer-Goods-Retail/Softlines-and-Accessories.



FOR ENQUIRIES:

Global Competence Support Centre:
gcsc@sgs.com

Global Softlines Development Office:
global.sl@sgs.com

Asia – Hong Kong,
Tel: +852 2334 4481,
mktg.hk@sgs.com

Australasia – Perth.
Tel: +61 (0) 3 9790 3418
au.cts@sgs.com

Europe – London – UK.
Tel: +44(0) 203 008 7860
gb.cts.sales@sgs.com

Africa & Middle East – Turkey.
Tel: +90 212 368 40 00
sgs.turkey@sgs.com

Americas – USA.
Tel: +1 973 575 5252
uscts.inquiries@sgs.com

www.sgs.com/cgmr

© SGS Group Management SA – 2014– All rights reserved
- SGS is a registered trademark of SGS Group Management SA. This is a publication of SGS, except for 3rd parties' contents submitted or licensed for use by SGS. SGS neither endorses nor disapproves said 3rd parties contents. This publication is intended to provide technical information and shall not be considered an exhaustive treatment of any subject treated. It is strictly educational and does not replace any legal requirements or applicable regulations. It is not intended to constitute consulting or professional advice. The information contained herein is provided "as is" and SGS does not warrant that it will be error-free or will meet any particular criteria of performance or quality. Do not quote or refer any information herein without SGS's prior written consent.