SG® – The label for low-pollutant leather products

Prüf- und Forschungs-institut Pirmasens

Responsibility

Natural materials such as leather and fur have to be tanned and dyed to achieve the desired characteristics. Chemicals are also used for conservation purposes while the materials are in storage or in transit.

Chemicals are indispensable for the production of leather goods - today and in the future.

In order to protect consumers, chemical substances may only be used as long as they do not pose any risk to health.

Consequently, it is extremely important to check that they are used correctly during production, that the auxilliaries are suitable and that the materials contain only a low quantity of harmful substances or, even better, none at all.

This is the only way to obtain products, which are not harmful to health.

* This mark has been registered as a service mark with the German Patent Office.

Health

Responsible manufacturers and retailers of shoes, leather goods, leather clothing and the materials required for production, know about the above mentioned risk to human health and act accordingly.

To document that their products have been manufactured with exceptional care, they label them with the SG mark which verifies that the goods have been "tested for harmful substances" (German: Schadstoffgeprüft).

This mark is awarded to those products only, which meet the stringent limit values and parameters for harmful substances set forth in the SG catalogue of test criteria. All SG limits are in general much lower than the statutory specifications.

The SG mark confirms that there is no danger to health according to present-day knowledge.

And this gives the consumer confidence with regard to the product's safety.

Partner

Three widely accepted institutes with many years of experience and expertise stand for safety and consumer friendliness:

TÜV Produkt und Umwelt GmbH,

Institut Fresenius GmbH,

Prüf- und Forschungsinstitut Pirmasens.

Testing

The SG catalogue of test criteria was developed by experts on the basis of the latest scientific findings.

The necessary tests depend on the materials used, the auxiliaries and the production processes. They guarantee reliable detection of relevant harmful substances.

The test results are supplemented by a legally binding manufacturer´s declaration pertaining to the basic materials and the production process.

The manufacturer´s own quality control system guarantees consistent product quality.

All finished products and materials labelled with the SG mark are subject to spot checks on a regular basis. All certificates awarded are recorded in a data bank.

Requirements

When a product is labelled with the SG mark, the consumer can be sure that it has been manufactured with exceptional care, for instance:

- Dyes that can release carcinogenic amines are not detectable.
- The limits for formaldehyde are below the declaration limit of the Cosmetics Ordinance.
- The pesticide limits established for food are not exceeded.
- The limits for PCP and other chlorophenols are far below the Prohibitory Ordinance for Chemicals.

Particularly stringent requirements apply to articles manufactured for infants.

Objective

Show consumers that you care - with the SG mark "tested for harmful substances".

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Our experts will be glad to advise you:

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SG criteria for testing

01/2001

Parameters	Components made of leather, fur Limit values Adults/children [2]	Components made of textiles Limit values Adults/children [2]	Components made of leather fibre material [1] Limit values Adults/children [2]	Components made of card-board, paper, wood, cellulose fibre, cork Limit values Adults/children [2]	Adhesives Limit values Adults/children [2]	Methods/standards applied
Odour	typical for product [3]	typical for product [3]	typical for product [3]	typical for product [3]	typical for product [3]	SNV 195 651
Colour fastness [4] Fastness to rubbing with perspiration solution acidic/alkaline	at least 3	at least 4		at least 3 - 4		DIN EN ISO 11640 (leather) DIN EN ISO 105 X12 (textile) DIN EN ISO 105 E04 (solution)
pH of aqueous extract	3,5 - 7,0 (- 8,0) [5]	4,5 - 7,5	3,5 - 7,0	4,5 - 7,5		textile: ISO 3071 leather: DIN EN ISO 4045
Formaldehyde (releasable under test conditions)	150/50 mg/kg	150/50 mg/kg	150/50 mg/kg	150/50 mg/kg	150/50 mg/kg	textile: LMBG 82.02-1 leather: DIN 53315
Pentachlorophenole (PCP)	0,5 mg/kg	0,5 / 0,05 mg/kg	0,5 mg/kg	0,5 mg/kg	0,5 mg/kg [6]	LMBG § 35 method
Chlorinated phenoles [7], Sum (except PCP)	1 mg/kg	1 mg/kg	3 mg/kg	1 mg/kg	1 mg/kg [6]	LMBG § 35 method
Pesticides [8] / wood preservatives [9]	1 mg/kg [10]	1 mg/kg	1 mg/kg [10]	1 mg/kg		in accordance with DFG S19
Tributyltin compounds	not detectable	not detectable	not detectable	not detectable	not detectable	in accordance with DIN 38407 part 13 quantification limit depending on the material
Forbidden azo dyes	not detectable	not detectable	not detectable	not detectable		textiles: § 35 LMBG 82.02-2, -4 leather: § 35 LMBG 82.02-3
Allergizing disperse dyes		not detectable				extraction DC
Chromium VI, soluble	not detectable	not detectable	not detectable	not detectable		DIN 53314
Soluble mineral tanning agents, total content of soluble Al, Cr, Ti, Zr	200/50 mg/kg		200/50 mg/kg			extraction, determination by means of ICP-OES, AAS
Substances extractable by washing out: Upper leather/lining leather/ vache leather/sole	 1,5 % 15 % / 5 %		5 % / 1,5 %			DIN 53307
Other heavy metals (soluble): Antimony Arsenic Cadmium Chromium, total content Cobalt Copper Lead Mercury Nickel	 2,0 mg/kg 0,2 mg/kg 0,1 mg/kg 4,0 mg/kg 60,0 mg/kg 0,8 mg/kg 0,02 mg/kg 4,0 m/kg	 2,0 mg/kg 0,2 mg/kg 0,1 mg/kg 2,0 mg/kg 4,0 mg/kg 60,0 mg/kg 0,8 mg/kg 0,02 mg/kg 4,0 mg/kg	 0,2 mg/kg 0,1 mg/kg 4,0 mg/kg 60,0 mg/kg 0,8 mg/kg 0,02 mg/kg 4,0 mg/kg	 0,2 mg/kg 0,1 mg/kg 2,0 mg/kg 4,0 mg/kg 60,0 mg/kg 0,8 mg/kg 0,02 mg/kg 4,0 mg/kg		extraction with acidic sweat solution in accordance with DIN EN ISO 105 E04, determination by means of ICP-OES, AAS

Parameters	Components made of plastics, caoutchouc/ artificial leather Limit values: Adults/children [2]	Methods/standards applied
Odour	typical of product [3]	In accordance with SNV 195651
Colour fastness [4] perspiration (alkaline) perspiration (acidic)	 at least 4 at least 4	DIN EN ISO 105 X12 DIN EN ISO 105 E04 (Solution)
Global migration	10 mg/dm^2	§ 35 LMBG B 1-3 (EG) 80,30
HCFC and CFC according to the German Ordinance "Halonverbotsverordnung"	not detectable	GC-ECD
Primary aromatic amines (in PU) as anilinehydrochloride	not detectable (O:V = 1:1)	§ 35 LMBG L 6 (EG) 00.00 (BG: 2 µg/l)
Monomeres e.g. acrylonitrile in NR	not detectable	§ 35 LMBG L 4 (EG) 00.00
Primary aromatic amines, (in caoutchouc, latex) as anilinehydrochloride	20 µg/l (O:V = 1:1)	§ 35 LMBG L6 (EG) 00.00
N-alkyl aryl amines (in caoutchoc, latex) as N-ethylphenylamine	1 mg/ml (O:V = 1:1)	Recommendation XXI item 2.5.2.2.3 Commitee on Plastics of the Federal Health Office at BgW
Nitrosamines (in caoutchouc, latex)	1,0 µg/dm^2	Bundesgesundheits- blatt 53 (5/1994)
Forbidden azo dyes	not detectable	textiles: § 35 LMBG 82.02-2 leather: § 35 LMBG 82.02-3
Cadmium	50 mg/kg	DIN ENV 1122
Tributyltin compounds (TBT)	not detectable	in accordance with DIN 38407 Part 13, (BG in general 0,005 mg/kg)
Further material-specific tests on harmful substances Kommission		According to recommendations of the "Commitee on Plastics" of the Federal Health Office at BgVV or EG 90/128 respectively
Phthalates in softened plastics	- / 0,05 %	extraction GC/MS

Parameters	Metall parts Limit values Adults/children [2]	Methods/standards applied
Nickel on the surface	< 0,5 µg/cm^2/week	B 82.02 – 6 (DIN EN 1811) B 82.02 – 7 (DIN EN 12 472)

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Notes:

[1] Leather-fibre material (lefa), skinned, without direct skin contact. The limits for leather apply to lefa with direct skin contact.

[2] Children under 36 month of age

[3] Only faint product specific odour

[4] 1 = strongly staining, 5 = no staining

[5] Chamois leather

[6] In hardened film

[7] Tetrachlorophenole, trichlorophenole

[8] DDT, lindane, aldrin, dieldrin, methoxychlor, DDD, DDE, heptachlor, heptachlorepoxide, HCH (a,b,d,e), malathion, mirex, parthion(-ethyl), permethrin in furs and wool

[9] Lindane, dichlofluanid, pentachloranisole, endosulfan, permethrin, chlorathalonil, tolylfluanid

[10] As alternative, the quantification limit of themeasurements