

KLASSIFIZIERUNG / CLASSIFICATION

NACH / ACCORDING TO DIN EN 45545-2:2016-02

8116079399-20

DMT GmbH & Co. KG
DMT-Prüflaboratorium für Brandschutz
DMT-Test Laboratory for Fire Protection

Tremoniastraße 13
44137 Dortmund
Deutschland

TÜV NORD GROUP

Hanex

Hyundai L&C Europe GmbH

Düsseldorfer Str. 13, 65760 Eschborn, DEUTSCHLAND

Das Produkt „**Hanex**“ hat in Verbindung mit den aufgelisteten Prüfungsvorschriften folgende Prüfergebnisse erzielt:

The product “Hanex” has attained the following test results according to the listed test standards:

Klassifizierung gemäß DIN EN 45545-2:2016-02 <i>Classification according to DIN EN 45545-2:2016-02</i>				Grenzwerte (Anforderung R1) <i>Limits (Requirement R1)</i>		
Prüfungsvorschrift <i>Test standard</i>	Parameter <i>Parameter</i>	Einheit <i>Unit</i>	IST-Wert <i>Actual value</i>	HL1	HL2	HL3
ISO 5658-2	CFE	[kW/m ²]	22,6	≥ 20	≥ 20	≥ 20
ISO 5660-1: 50 kW/m ²	MARHE	[kW/m ²]	51,6	-	90	60
EN ISO 5659-2	D _s (4)		0,7	600	300	150
	VOF ₄	min	0,3	1200	600	300
	CIT _G		0,09	1,2	0,9	0,75

Das Produkt **erfüllt** den Anforderungssatz **R1** für die Gefährdungsstufe **HL3**.

The product fulfils the fire protection requirements R1 for the Hazard Level HL3.

Diese Klassifizierung gilt nur in Verbindung mit den nachfolgend genannten Prüfberichten, ausgestellt durch die Prüfstelle für Brandschutz der DMT GmbH & Co. KG:

This classification is only valid in combination with the test reports listed below, handed out by DMT GmbH & Co. KG, Test Body for Fire Protection:

APS4-Mow/Br 8116079399-10a vom / of 27.08.2018

APS4-Mow/Püs 8116079399-10b vom / of 27.08.2018


APS4-Mow/Püs 8116079399-10c vom / of 27.08.2018

Dortmund, 06.12.2018



 (Mowe)
 (Fachbereichsleiter (PrBS))
 (unit manager (PrBS))





 (Schramke)
 (Prüfingenieur)
 (test engineer)

Bericht zur Klassifizierung des Brandverhaltens

Nr. 231001555

vom 03.03.2022

Auftraggeber

Hyundai L&C Europe GmbH
Düsseldorfer Str. 13

65760 Eschborn

Auftrag

Klassifizierung des Brandverhaltens nach DIN EN 13501-1

Auftragsdatum:

21.02.2022

Bezeichnung des zu klassifizierenden Bauprodukts:

Mineralwerkstoffplatten „Hanex“ in beliebigen Farben

Dieser Bericht bestimmt die Klassifizierung des o. g. Bauprodukts in Übereinstimmung mit dem in DIN EN 13501-1 (Deutsche Fassung EN 13501-1:2019) angegebenen Verfahren.

Klassifizierungsberichte dürfen ohne Zustimmung des MPA NRW nur nach Form und Inhalt unverändert veröffentlicht oder vervielfältigt werden.

Dieser Klassifizierungsbericht umfasst 4 Seiten.

1. Beschreibung des Bauproduktes

Homogene Platten aus acrylgebundenem Mineralwerkstoff in beliebigen Farben.

Dickenbereich: 6 mm - 12 mm

Flächengewicht einer 6 mm dicken Platte: ca. 10,7 kg/m²

Flächengewicht einer 12 mm dicken Platte: ca. 21,0 kg/m²

Mittlere Rohdichte: ca. 1767 kg/m³

Bzgl. des Anwendungsbereichs s. Abschnitt 3.

2. Prüfberichte und Prüfergebnisse, die der Klassifizierung zugrunde liegen

2.1 Prüfberichte

Name des Labors	Auftraggeber	Nummer des Prüfberichts	Prüfverfahren
MPA NRW	Angaben zum Auftraggeber hinterlegt in den Akten des MPA NRW	230006022-A vom 09.07.2007	DIN EN 13823
MPA NRW	Angaben zum Auftraggeber hinterlegt in den Akten des MPA NRW	230006022-B vom 10.07.2007	DIN EN ISO 11925-2

2.2 Prüfergebnisse

Prüfverfahren	Anzahl der Versuche	Parameter	Prüfergebnisse	
			Mittelwerte	Erfüllt
DIN EN 13823	3	FIGRA _{0,2} (W/s)	40,7	--
		THR _{600s} (MJ)	4,2	--
		LFS < Außenkante	--	Ja
		SMOGR _A (m ² /s)	1,7	--
		TSP _{600s} (m ²)	12,3	--
		Brennendes Abfallen (s)	0	--

Prüfverfahren	Anzahl der Versuche	Parameter	Prüfergebnisse	
			Stetige Parameter Mittelwerte	Diskrete Parameter
DIN EN ISO 11925-2	6 x F und 6 x K	$F_s \leq 150$ mm Brennendes Abfallen	-- --	Ja Nein

Bemerkung: K = Geprüft mit Kantenbeflammung, F = Geprüft mit Flächenbeflammung

Hinweis: Die Vorgehensweise bei der Ermittlung der aufgeführten Prüfergebnisse, die die Grundlage für die Klassifizierung bilden, ist in den o.g. Prüfberichten beschrieben. Die oben aufgeführten Prüfergebnisse für das Prüfverfahren nach DIN EN 13823 beziehen sich auf die im Laufe der Durchführung eines Prüfprogramms ermittelte ungünstigste Produktvariante bzgl. des Brandverhaltens des in Abschnitt 1 beschriebenen Produkts.

3. Klassifizierung und direkter Anwendungsbereich

3.1 Referenz

Die Klassifizierung wurde in Übereinstimmung mit den Abschnitten 11. und 14.1 der Norm DIN EN 13501-1: 2019 durchgeführt.

3.2 Klassifizierung

Das geprüfte Material wird in Bezug auf sein Brandverhalten klassifiziert als: **B**

Die zusätzliche Klassifizierung in Bezug auf die Rauchentwicklung ist: **s1**

Die zusätzliche Klassifizierung in Bezug auf das brennende Abtropfen ist: **d0**

Damit ergibt sich als Klassifizierung des Brandverhaltens des geprüften Materials:

Brandverhalten	Rauchentwicklung	Brennendes Abtropfen
B	s1	d0

d. h. **B – s1, d0**

3.3 Anwendungsbereich des Produktes

Die Klassifizierung gilt nur für das unter Abschnitt 1 beschriebene Produkt mit Dicken von 6 mm bis 12 mm verklebt mit „Terokal-625“ 2K-PU-Kleber der Firma Henkel KGaA oder ähnliche Kleber mit einer Nassauftragsmenge von maximal ca. 600 g/m² auf Untergründen aus Gipskartonplatten oder anderen bzgl. des Brandverhaltens in die Klassen A1 und A2 nach DIN EN 13501-1 klassifizierten Untergründen. Die Mindestdicke dieser Untergründe muss 6 mm und die Mindest-Rohdichte 700 kg/m³ betragen.

4. Einschränkungen

Dieser Klassifizierungsbericht ersetzt keine Typzulassung oder Produktzertifizierung.

Erwitte, 03.03.2022

Im Auftrag



Dipl.-Ing. Kühnen

Stellv. Leiter der Prüfstelle



Dies ist eine Zweitausfertigung. Rechtlich gültig ist ausschließlich die vom MPA NRW unterschriebene und gestempelte Fassung.

Report of the classification of the reaction to fire performance

No. 231001555

dated 03.03.2022

English version

Sponsor

Hyundai L&C Europe GmbH
Düsseldorfer Str. 13

65760 Eschborn

Order

Classification of the reaction to fire behaviour according to DIN EN 13501-1

Date of order

21 Febr 2022

Name of the classified building product:

Acrylic solid surface sheeting named "Hanex" in all colours

This report determines the classification of the above-mentioned building product in conformity with the procedure as given in DIN EN 13501 (German version of EN 13501-1: 2019)

1. Description of the building product

Homogenous acrylic solid surface sheeting in all colours.

Range of thickness: 6 mm - 12 mm

Weight per unit area of a 6 mm thick sheet: about 10.7 kg/m²

Weight per unit area of a 12 mm thick sheet: about 21.0 kg/m²

Average raw density: about 1767 kg/m³

Concerning the field of application, see chapter 3.

2. Test reports and test results supporting the classification

2.1 Test reports

Test laboratory	Sponsor	Test report no.	Test procedure
MPA NRW	Information on the sponsor is stored in the files of MPA NRW	230006022-A dated 09.07.2007	DIN EN 13823
MPA NRW	Information on the sponsor is stored in the files of MPA NRW	230006022-B dated 10.07.2007	DIN EN ISO 11925-2

2.2 Test results

Test procedure	No. of tests performed	Parameter	Test results	
			Mean values	Fulfilled
DIN EN 13823	3	FIGRA _{0,2} (W/s)	40.7	--
		THR _{600s} (MJ)	4.2	--
		LFS < edge	--	Yes
		SMOGR _A (m ² /s)	1.7	--
		TSP _{600s} (m ²)	12.3	--
		Flaming droplets/particles (s)	0	--

Test procedure	No. of tests performed	Parameter	Test results	
			Continuous parameter Mean values	Compliance parameter
DIN EN ISO 11925-2	6 x K and 6 x F	$F_s \leq 150$ mm Flaming droplets/particles	-- --	Yes No

Remark: K = tested with edge exposure, F = tested with surface exposure

Remark: The procedure of testing for getting the above mentioned test results, which are basis for the classification is, described in the above-mentioned test reports. The above-mentioned results of the test procedure according to DIN EN 13823 refer to tests performed with the worst variant of the product as described in chapter 1 concerning the reaction to fire behaviour, which was determined in the course of a test programme.

3. Classification and direct field of application

3.1 Reference

This classification was carried out in accordance with the paragraphs 11. and 14.1 of the standard DIN EN 13501-1:2019.

3.2 Classification

The tested product in relation to its reaction to fire behaviour is classified as: **B**

The additional classification in relation to smoke production is: **s1**

The additional classification in relation to flaming droplets/particles is: **d0**

The classification of the reaction to fire performance is therefore:

Fire behaviour	Smoke production	Flaming droplets/ particles
B	s1	d0

i. e. **B – s1, d0**

3.3 Field of application

The classification is valid solely for the product as described in clause 1 with sheet thicknesses in the range from 6 mm to 12 mm, glued with „Terokal-625“ two components PU adhesive by Henkel KGaA or similar adhesive (application amount in wet condition up to 600 g/m²) on substrates made of gypsum plaster board or other substrates classified as A1 or A2 according to DIN EN 13501-1. The minimum thickness of these substrates has to be 6 mm and the minimum density has to be 700 kg/m³.

4. Restrictions

This classification report does not represent a type approval or certification of the product.

This classification report written in English language is issued additionally to the report written in German language with the same report no. In case of doubt, the German version is solely valid.

Erwitte, 03.03.2022
On behalf



Dipl.-Ing. Kühnen
Deputy Head of the testing body



Date of issue of this English version: 3 March 2022

This document is a duplicate. Solely the duly signed and stamped document is legally binding.

HYUNDAI L&C
37, Buganggeumho-ro
Bugang-myeon, Sejong-si
Korea

The following sample(s) was/were submitted and identified by/on behalf of the client as:-

SGS File No. : AYHA20-05595
Sample Description : Hanex
Style no./Item no. : N-White
Order No. : -
Manufacturer : HYUNDAI L&C
Country of Origin : Republic of Korea
Country of Destination : -
Received Date : 2020. 05. 21
Test Period : 2020. 05. 21 to 2020. 06. 01
Test Requested : As requested by client, SVHC screening is performed according to:

- Two hundred and five (205) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before January 16, 2020 regarding Regulation (EC) No 1907/2006 concerning the REACH.
- Five (5) substances newly included in the Consultation List of potential Substances of Very High Concern (SVHC) published by European Chemicals Agency (ECHA) on March 3, 2020 regarding Regulation (EC) No 1907/2006 concerning the REACH.

Test Method : For further details, please refer to following page (s)
Test Results : For further details, please refer to following page (s)
Report Comments : The results shown in this test report refer only to the sample(s) tested unless otherwise stated.

This test report is not related to Korea Laboratory Accreditation Scheme.

Test Requested	Conclusion
According to the specified scope and analytical techniques, concentrations of tested SVHC are $\leq 0.1\%$ (w/w) in the submitted sample.	PASS

SGS Korea Co., Ltd.



Tommy Oh / Chemical Lab Mgr

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Remark :

1. The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the following SVHC related documents published by ECHA:

- <https://echa.europa.eu/web/guest/candidate-list-table> (Candidate list)

The lists are under evaluation by ECHA and may subject to change in the future.

2. In accordance with Regulation (EC) No 1907/2006, any EU producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1) of the Regulation, if (a) the substance in the Candidate List is present in those articles in quantities totaling over one tonne per producer or importer per year; and (b) the substance in the Candidate List is present in those articles above a concentration of 0.1% weight by weight (w/w).

3. Article 33 of Regulation (EC) No 1907/2006 requires supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance in the Candidate List.

Test Sample:

Sample Description:

A. Hanex

Sample No.	Component No.	Component Description	Remark
A	1.	[White][MMA][Powder]	/

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Test Method:

SGS In-House method - Analyzed by ICP-OES, GC-MS, UV-VIS, HPLC-DAD, HPLC-MS and colorimetric method

Test Result (Per individual component):

No.	Substance Name	CAS No./ EC No.	RL (%)	Concentration (%)
				1
-	All tested SVHC	-	-	ND

Notes :

1. RL = Reporting Limit. All RL are based on homogenous material
 ND = Not detected (lower than RL), ND is denoted on the SVHC substance.
 NA^ = The submitted sample was found to contain significant amount of specific element(s) of SVHC. Upon further test verification and also information provided from client, the possibility that the element(s) content originate from SVHC is very unlikely, even though their presence cannot be excluded entirely. It may be assumed that the detected element(s) have a non-SVHC source.
2. * The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website:

<http://www.sgs.com/en/Consumer-Goods-Retail/Toys-and-Juvenile-Products/Toys/REACH/Management-of-SVHC.aspx>

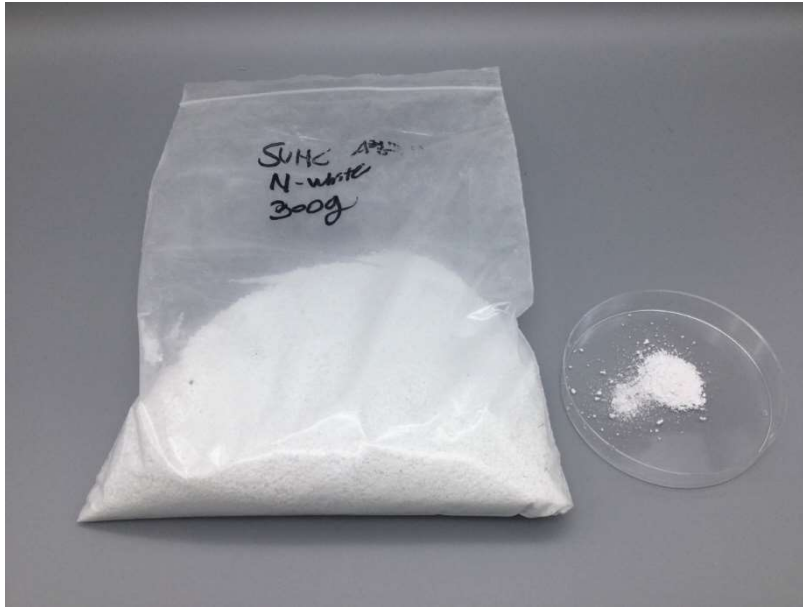
The client is advised to review the chemical formulation to ascertain above metal substances present in the article.

RL = 0.001% is evaluated for element (i.e. aluminum, antimony, arsenic, barium, boron, cadmium, calcium, chromium, chromium (VI), cobalt, lead, potassium, titanium, silicon, sodium, strontium, zinc and zirconium respectively), except molybdenum RL = 0.0001%

3. The table above only shows detected SVHC, and SVHC that below RL are not reported. Please refer to Appendix for the full list of tested SVHC.

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Picture of Sample as Received :



AYHA20-05595

*** End of Report ***

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Appendix

No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Oct 28, 2008							
1	4,4'-Diaminodiphenylmethane (MDA)	101-77-9/ 202-974-4	0.010	2	5-tert-butyl-2,4,6-trinitro- <i>m</i> -xylene (musk xylene)	81-15-2/ 201-329-4	0.010
3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8/ 287-476-5	0.010	4	Anthracene	120-12-7/ 204-371-1	0.010
5	Benzyl butyl phthalate (BBP)	85-68-7/ 201-622-7	0.010	6	Bis(2-ethylhexyl)phthalate (DEHP)	117-81-7/ 204-211-0	0.010
7	Bis(tributyltin)oxide (TBTO)	56-35-9/ 200-268-0	0.010	8	Cobalt dichloride*	7646-79-9/ 231-589-4	0.001
9	Diarsenic pentaoxide*	1303-28-2/ 215-116-9	0.001	10	Diarsenic trioxide*	1327-53-3/ 215-481-4	0.001
11	Dibutyl phthalate (DBP)	84-74-2/ 201-557-4	0.010	12	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4/ 247-148-4; 3194-55-6/ 221-695-9; (134237-50-6/-; 134237-51-7/-; 134237-52-8/-)	0.010
13	Lead hydrogen arsenate*	7784-40-9/ 232-064-2	0.001	14	Sodium dichromate*	7789-12-0 10588-01-9/ 234-190-3	0.001
15	Triethyl arsenate*	15606-95-8/ 427-700-2	0.001				
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jan 13, 2010							
16	2,4-Dinitrotoluene	121-14-2/ 204-450-0	0.010	17	Anthracene oil*	90640-80-5/ 292-602-7	0.010
18	Anthracene oil, anthracene paste*	90640-81-6/ 292-603-2	0.010	19	Anthracene oil, anthracene paste, anthracene fraction*	91995-15-2/ 295-275-9	0.010
20	Anthracene oil, anthracene paste; distn. Lights*	91995-17-4/ 295-278-5	0.010	21	Anthracene oil, anthracene-low*	90640-82-7/ 292-604-8	0.010
22	Diisobutyl phthalate	84-69-5/ 201-553-2	0.010	23	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)*	12656-85-8/ 235-759-9	0.001
24	Lead chromate*	7758-97-6/ 231-846-0	0.001	25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)*	1344-37-2/ 215-693-7	0.001
26	Pitch, coal tar, high temp.*	65996-93-2/ 266-028-2	0.010	27	Tris(2-chloroethyl)phosphate	115-96-8/ 204-118-5	0.010
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Mar 30, 2010							
28	Acrylamide	79-06-1/ 201-173-7	0.010				

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 18, 2010							
29	Ammonium dichromate*	7789-09-5/ 232-143-1	0.001	30	Boric acid*	10043-35-3/ 233-139-2; 11113-50-1/ 234-343-4	0.001
31	Disodium tetraborate, anhydrous*	1303-96-4 1330-43-4 12179-04-3/ 215-540-4	0.001	32	Potassium chromate*	7789-00-6/ 232-140-5	0.001
33	Potassium dichromate*	7778-50-9/ 231-906-6	0.001	34	Sodium chromate*	7775-11-3/ 231-889-5	0.001
35	Tetraboron disodium heptaoxide, hydrate*	12267-73-1/ 235-541-3	0.001	36	Trichloroethylene	79-01-6/ 201-167-4	0.010
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Dec 15, 2010							
37	2-Ethoxyethanol	110-80-5/ 203-804-1	0.010	38	2-Methoxyethanol	109-86-4/ 203-713-7	0.010
39	Acids generated from chromium trioxide and their oligomers: Chromic acid Dichromic acid Oligomers of chromic acid and dichromic acid*	7738-94-5/ 231-801-5; 13530-68-2/ 236-881-5	0.001	40	Chromium trioxide*	1333-82-0/ 215-607-8	0.001
41	Cobalt(II) carbonate*	513-79-1/ 208-169-4	0.001	42	Cobalt(II) diacetate*	71-48-7/ 200-755-8	0.001
43	Cobalt(II) dinitrate*	10141-05-6/ 233-402-1	0.001	44	Cobalt(II) sulphate*	10124-43-3/ 233-334-2	0.001
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 20, 2011							
45	1,2,3-Trichloropropane	96-18-4/ 202-486-1	0.010	46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6/ 276-158-1	0.010
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4/ 271-084-6	0.010	48	1-Methyl-2-pyrrolidone	872-50-4/ 212-828-1	0.010
49	2-Ethoxyethyl acetate	111-15-9/ 203-839-2	0.010	50	Hydrazine	7803-57-8 302-01-2/ 206-114-9	0.010
51	Strontium chromate*	7789-06-2/ 232-142-6	0.001				

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Dec 19, 2011							
52	1,2-Dichloroethane	107-06-2/ 203-458-1	0.010	53	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4/ 202-918-9	0.010
54	2-Methoxyaniline	90-04-0/ 201-963-1	0.010	55	4-tert-Octylphenol	140-66-9/ 205-426-2	0.010
56	Aluminosilicate Refractory Ceramic Fibres*	650-017-00-8 (Index no.)	0.001	57	Arsenic acid*	7778-39-4/ 231-901-9	0.001
58	Bis(2-methoxyethyl) ether	111-96-6/ 203-924-4	0.010	59	Bis(2-methoxyethyl) phthalate	117-82-8/ 204-212-6	0.010
60	Calcium arsenate*	7778-44-1/ 231-904-5	0.001	61	Dichromium tris(chromate)*	24613-89-6/ 246-356-2	0.001
62	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4/ 500-036-1	0.010	63	Lead diazide*	13424-46-9/ 236-542-1	0.001
64	Lead dipicrate*	6477-64-1/ 229-335-2	0.001	65	Lead styphnate*	15245-44-0/ 239-290-0	0.001
66	N,N-dimethylacetamide (DMAC)	127-19-5/ 204-826-4	0.010	67	Pentazinc chromate octahydroxide*	49663-84-5/ 256-418-0	0.001
68	Phenolphthalein	77-09-8/ 201-004-7	0.010	69	Potassium hydroxyoctaoxidizincatedichromate*	11103-86-9/ 234-329-8	0.001
70	Trilead diarsenate*	3687-31-8/ 222-979-5	0.001	71	Zirconia Aluminosilicate Refractory Ceramic Fibres*	650-017-00-8 (Index no.)	0.001
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 18, 2012							
72	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5/ 219-943-6	0.010	73	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9/ 208-953-6	0.010
74	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme)	112-49-2/ 203-977-3	0.010	75	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4/ 203-794-9	0.010
76	4,4'-bis(dimethylamino) benzophenone (Michler's Ketone)	90-94-8/ 202-027-5	0.010	77	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1/ 209-218-2	0.010
78	Diboron trioxide*	1303-86-2/ 215-125-8	0.001	79	Formamide	75-12-7/ 200-842-0	0.010
80	Lead(II) bis(methanesulfonate)*	17570-76-2/ 401-750-5	0.001	81	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1/ 202-959-2	0.010
82	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9/ 219-514-3	0.010	83	α,α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0/ 229-851-8	0.010
84	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6/ 423-400-0	0.010				

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Dec 19, 2012							
85	[Phthalato(2-)]dioxitrilead*	69011-06-9/ 273-688-5	0.001	86	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0/ 284-032-2	0.010
87	1,2-Diethoxyethane	629-14-1/ 211-076-1	0.010	88	1-Bromopropane	106-94-5/ 203-445-0	0.010
89	3-Ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2/ 421-150-7	0.010	90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-	0.010
91	4,4'-Methylenedi-o-toluidine	838-88-0/ 212-658-8	0.010	92	4,4'-Oxydianiline	101-80-4/ 202-977-0	0.010
93	4-Aminoazobenzene	60-09-3/ 200-453-6	0.010	94	4-Methyl-m-phenylenediamine	95-80-7/ 202-453-1	0.010
95	4-Nonylphenol, branched and linear	-	0.010	96	6-Methoxy-m-toluidine	120-71-8/ 204-419-1	0.010
97	Acetic acid, lead salt, basic*	51404-69-4/ 257-175-3	0.001	98	Biphenyl-4-ylamine	92-67-1/ 202-177-1	0.010
99	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5/ 214-604-9	0.010	100	C,C'-azodi(formamide) (ADCA)	123-77-3/ 204-650-8	0.010
101	Dibutyltin dichloride (DBT)	683-18-1/ 211-670-0	0.010	102	Diethyl sulphate	64-67-5/ 200-589-6	0.010
103	Diisopentylphthalate (DIPP)	605-50-5/ 210-088-4	0.010	104	Dimethyl sulphate	77-78-1/ 201-058-1	0.010
105	Dinoseb	88-85-7/ 201-861-7	0.010	106	Dioxobis(stearato)trilead*	12578-12-0/ 235-702-8	0.001
107	Fatty acids, C16-18, lead salts*	91031-62-8/ 292-966-7	0.001	108	Furan	110-00-9/ 203-727-3	0.010
109	Henicosaflluoroundecanoic acid	2058-94-8/ 218-165-4	0.010	110	Heptacosaflluorotetradecanoic acid	376-06-7/ 206-803-4	0.010
111	Hexahydro-2-benzofuran-1,3-dione, cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7/ 201-604-9; 13149-00-3/ 236-086-3; 14166-21-3/ 238-009-9	0.010	112	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0/ 247-094-1; 19438-60-9/ 243-072-0; 48122-14-1/ 256-356-4; 57110-29-9/ 260-566-1	0.010
113	Lead bis(tetrafluoroborate)*	13814-96-5/ 237-486-0	0.001	114	Lead cyanamidate*	20837-86-9/ 244-073-9	0.001
115	Lead dinitrate*	10099-74-8/ 233-245-9	0.001	116	Lead monoxide*	1317-36-8/ 215-267-0	0.001
117	Lead oxide sulphate*	12036-76-9/ 234-853-7	0.001	118	Lead tetroxide*	1314-41-6/ 215-235-6	0.001
119	Lead titanium trioxide*	12060-00-3/ 235-038-9	0.001	120	Lead titanium zirconium oxide*	12626-81-2/ 235-727-4	0.001

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
121	Methoxyacetic acid	625-45-6/ 210-894-6	0.010	122	N,N-Dimethylformamide	68-12-2/ 200-679-5	0.010
123	N-Methylacetamide	79-16-3/ 201-182-6	0.010	124	N-Pentyl-isopentylphthalate	776297-69-9 /-	0.010
125	o-Aminoazotoluene	97-56-3/ 202-591-2	0.010	126	o-Toluidine	95-53-4/ 202-429-0	0.010
127	Pentacosfluorotridecanoic acid	72629-94-8/ 276-745-2	0.010	128	Pentalead tetraoxide sulphate*	12065-90-6/ 235-067-7	0.001
129	Propylene oxide	75-56-9/ 200-879-2	0.010	130	Pyrochlore, antimony lead yellow*	8012-00-8/ 232-382-1	0.001
131	Silicic acid, barium salt, lead-doped*	68784-75-8/ 272-271-5	0.001	132	Silicic acid, lead salt*	11120-22-2/ 234-363-3	0.001
133	Sulfurous acid, lead salt, dibasic*	62229-08-7/ 263-467-1	0.001	134	Tetraethyllead*	78-00-2/ 201-075-4	0.001
135	Tetralead trioxide sulphate*	12202-17-4/ 235-380-9	0.001	136	Tricosfluorododecanoic acid	307-55-1/ 206-203-2	0.010
137	Trilead bis(carbonate)dihydroxide*	1319-46-6/ 215-290-6	0.001	138	Trilead dioxide phosphonate*	12141-20-7/ 235-252-2	0.001

Candidate List of Substances of Very High Concern (SVHC) for authorization published on June 20, 2013

139	4-Nonylphenol, branched and linear, ethoxylated	-	0.010	140	Ammoniumpentadecafluoro octanoate (APFO)	3825-26-1/ 223-320-4	0.010
141	Cadmium	7440-43-9/ 231-152-8	0.001	142	Cadmium oxide*	1306-19-0/ 215-146-2	0.001
143	Di-n-pentyl phthalate	131-18-0/ 205-017-9	0.010	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1/ 206-397-9	0.010

Candidate List of Substances of Very High Concern (SVHC) for authorization published on Dec 16, 2013

145	Cadmium sulphide*	1306-23-6/ 215-147-8	0.001	146	Dihexyl phthalate	84-75-3/ 201-559-5	0.010
147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0/ 209-358-4	0.010	148	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7/ 217-710-3	0.010
149	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7/ 202-506-9	0.010	150	Lead di(acetate)*	301-04-2/ 206-104-4	0.001
151	Trixylyl phosphate	25155-23-1/ 246-677-8	0.010				

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 16, 2014							
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4/ 271-093-5	0.010	153	Cadmium chloride*	10108-64-2/ 233-296-7	0.001
154	Sodium perborate; perboric acid, sodium salt*	- / 234-390-0; 239-172-9	0.001	155	Sodium peroxometaborate*	7632-04-4/ 231-556-4	0.001
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Dec 17, 2014							
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7 / 223-346-6	0.010	157	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1 / 247-384-8	0.010
158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate; DOTE	15571-58-1 / 239-622-4	0.010	159	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	-	0.010
160	Cadmium fluoride*	7790-79-6 / 232-222-0	0.001	161	Cadmium sulphate*	10124-36-4; 31119-53-6 / 233-331-6	0.001
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 15, 2015							
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5; 68648-93-1/ 271-094-0; 272-013-1	0.010	163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	-	0.010
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Dec 17, 2015							
164	1,3-propanesultone	1120-71-4 / 214-317-9	0.010	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1 / 223- 383-8	0.010
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3 / 253-037-1	0.010	167	Nitrobenzene	98-95-3 / 202- 716-0	0.010
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9-heptafluorononanoic acid and its sodium and ammonium salts	375-95-1; 21049-39-8; 4149-60-4 / 206-801-3	0.010				
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 20, 2016							
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8 / 200-028-5	0.010				

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jan 12, 2017							
170	4,4'-Isopropylidenediphenol (Bisphenol A)	80-05-7 / 201-245-8	0.010	171	4-Heptylphenol, branched and linear	-	0.010
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salt	335-76-2; 3830-45-3; 3108-42-7/ 206-400-3; -, 221-470-5	0.010	173	p-(1,1-dimethylpropyl)phenol	80-46-6 / 201-280-9	0.010
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jul 7, 2017							
174	Perfluorohexane-1-sulphonic acid and its salts	- / -	0.010				
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jan 15, 2018							
175	1,6,7,8,9,14,15,16,17,17,18,18 Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10] octadeca-7,15-diene (Dechlorane Plus TM) [covering any of its individual anti- and syn-isomers or any combination thereof]	- / -	0.010	176	Benz[a]anthracene	56-55-3 / 200-280-6	0.010
177	Cadmium nitrate	10325-94-7 / 233-710-6	0.001	178	Cadmium carbonate	513-78-0 / 208-168-9	0.001
179	Cadmium hydroxide	21041-95-2 / 244-168-5	0.001	180	Chrysene	218-01-9 / 205-923-4	0.010
181	Reaction products of 1,3,4-thiadiazolidine-2, 5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	- / -	0.010				
Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jun 27, 2018							
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (TMA)	552-30-7 / 209-008-0	0.010	183	Benzo[ghi]perylene	191-24-2 / 205-883-8	0.010
184	Decamethylcyclopentasiloxane (D5)	541-02-6 / 208-764-9	0.010	185	Dicyclohexyl phthalate (DCHP)	84-61-7 / 201-545-9	0.010
186	Disodium octaborate*	12008-41-2 / 234-541-0	0.001	187	Dodecamethylcyclohexasiloxane (D6)	540-97-6 / 208-762-8	0.010
188	Ethylenediamine (EDA)	107-15-3 / 203-468-6	0.010	189	Lead	7439-92-1 / 231-100-4	0.001
190	Octamethylcyclotetrasiloxane (D4)	556-67-2 / 209-136-7	0.010	191	Terphenyl, hydrogenated	61788-32-7 / 262-967-7	0.010

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No.	Substance Name	CAS No./ EC No.	RL (%)	No.	Substance Name	CAS No./ EC No.	RL (%)
<u>Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jan 15, 2019</u>							
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	0.010	193	Benzo[k]fluoranthene	205-916-6	0.010
194	Fluoranthene	205-912-4	0.010	195	Phenanthrene	201-581-5	0.010
196	Pyrene	204-927-3	0.010	197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8 / 239-139-9	0.010
<u>Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jul 16, 2019</u>							
198	2,3,3,3-Tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides [covering any of their individual isomers and combinations thereof]	--	0.010	199	2-Methoxyethyl acetate	110-49-6 / 203-772-9	0.010
200	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	--	0.010	201	4-tert-butylphenol	98-54-4 / 202-679-0	0.010
<u>Candidate List of Substances of Very High Concern (SVHC) for authorization published on Jan 16, 2020</u>							
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1 / 404-360-3	0.010	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5 / 400-600-6	0.010
204	Diisohexyl phthalate	71850-09-4 / 276-090-2	0.010	205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	0.010
<u>Consultation List of Substances of Very High Concern (SVHC) for authorization published on March 3, 2020</u>							
206	1-vinylimidazole	1072-63-5 / 214-012-0	0.010	207	2-methylimidazole	693-98-1 / 211-765-7	0.010
208	Butyl 4-hydroxybenzoate	94-26-8 / 202-318-7	0.010	209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4 / 245-152-0	0.010
210	Resorcinol	108-46-3 / 203-585-2	0.010				

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Notes

1. RL = Reporting Limit. All RL are based on homogenous material
2. * The test result is based on the calculation of selected element(s) / marker(s) and to the worst-case scenario. For detail information, please refer to the SGS REACH website:

<http://www.sgs.com/en/Consumer-Goods-Retail/Toys-and-Juvenile-Products/Toys/REACH/Management-of-SVHC.aspx>

The client is advised to review the chemical formulation to ascertain above metal substances present in the article.

RL = 0.001% is evaluated for element (i.e. aluminum, antimony, arsenic, barium, boron, cadmium, calcium, chromium, chromium (VI), cobalt, lead, potassium, titanium, silicon, sodium, strontium, zinc and zirconium respectively), except molybdenum RL = 0.0001%

Beschreibung

Acrilove ist ein Zweikomponenten-Mehrzweckklebstoff, der speziell für die meisten farbigen Materialien im Innen- und Außenbereich hergestellt wurde, wie z. B.: Feste Oberflächen, Kunststein, Kunststoff, Keramik, Glas, Naturstein, festes Laminat, Gummi und Stahl.

Eigenschaften

- Außergewöhnliche Biegefestigkeit bis 6.000 PSI
- Perfekte Farbabstimmung mit jeder Farbe von fester Oberfläche, Quarz und Keramik

Anwendungsinstruktionen

1. Vorbereitung

Tragen Sie vor dem Start und zu jeder Zeit während der Arbeit eine Schutzbrille und Handschuhe.

Stellen Sie sicher, dass die Farbe des Klebstoffs mit der Farbe der Oberfläche übereinstimmt (verwenden Sie die Acrilove Übereinstimmungstabelle).

Falls erforderlich, führen Sie eine Probeklebung auf einem Schrottblech durch.

Reinigen Sie den Klebebereich von Staub, entfetten Sie die Teileverbindungen ordnungsgemäß, bereiten Sie Klemmen und Hilfswerkzeuge vor.

Setzen Sie die Patrone gemäß der Bedienungsanleitung des Applikators in den Applikator ein.

Entfernen Sie die Schutzkappe, indem Sie sie um eine Viertel-Umdrehung drehen und dann von der Patrone abziehen.

Überprüfen Sie die Patrone, stellen Sie sicher, dass sie sauber ist, und reinigen Sie sie gegebenenfalls von möglichen Verunreinigungen.

WICHTIG

- Stellen Sie die Kartusche zunächst für 30 Minuten - 1 Stunde in eine vertikale Position bevor Sie den Kleber verwenden.**
- Die Kartusche senkrecht in den Spender einsetzen.**
- Bewegen Sie den Applikator Kolben nahe an die Patronenkolben und drücken Sie ein oder zwei Mal auf den Applikator Hebel.**
- Nachdem Sie sich davon überzeugt haben, dass der Klebstoff und der Härter gleichmäßig von beiden Düsen kommen, geben Sie einen statischen Mischer in die Patrone und wickeln Sie ihn in einer Viertel-Umdrehung ein (um den Mischer zu entfernen, wiederholen Sie die Schritte in umgekehrter Reihenfolge).**
- In dieser Position mehrmals die Pistole betätigen, bis der Klebstoff und der Härter gleichmäßig aus beiden Düsen austreten um eventl. Lufteinschlüsse zu entfernen.**
- Drücken Sie leicht auf den Hebel des Applikators, um etwas Klebstoff herauszudrücken. Der Kleber ist jetzt gebrauchsfertig.**

Kleber auftragen

Tragen Sie den Kleber mit einer gleichmäßigen Walze auf, damit beim Zusammendrücken der Oberflächen ein leichtes Herausdrücken des überschüssigen Klebers auftritt.

Lassen Sie an unsichtbaren Stellen und an Orten, an denen keine erhöhte Notwendigkeit nach Sauberkeit der Verbindung besteht, einen Überschuss des Klebstoffs zurück, um der Naht eine zusätzliche Festigkeit zu verleihen.

Die geklebten Oberflächen müssen spätestens 10 Minuten nach dem Auftragen des Klebstoffs zusammengebaut und zusammengedrückt werden.

Vermeiden Sie beim Arbeiten ein zu festes Anziehen der Klemmen, da dies die Festigkeit des Klebstoffs beeinträchtigen kann.

1. Abschluss der Arbeit

Entfernen Sie nach Abschluss der Arbeiten den statischen Patronenmischer und setzen Sie die Schutzkappe wieder auf. Bewahren Sie die Patrone mit dem Klebstoff bis zum nächsten Gebrauch an einem dunklen, kühlen Ort auf.

Leere Patronen und gebrauchte statische Mischer müssen gemäß den Bestimmungen Ihres Landes entsorgt werden.

Aufräumen

Reinigen Sie überschüssigen Kleber mit einem Tuch und / oder reinigen Sie ihn mit einem Lösungsmittel wie Aceton oder Nagellackentferner. Kratzen.

Eigenschaften

Aussehen (Klebstoff)	Klare oder gefärbte viskose Flüssigkeit
Aussehen (Aktivator)	Klare viskose Flüssigkeit
Arbeitszeit 1. Option	10 – 15 Minuten
Aushärtungszeit 1. Option	20 – 25 Minuten
Schleifen nach	25 – 30 Minuten
Arbeitszeit 2. Option	25 – 30 Minuten
Aushärtungszeit 2. Option	35 – 45 Minuten
Schleifen nach	45 – 55 Minuten
Viskosität 1 Klebstoff	15000 – 25000 CPS
Viskosität 1 (Härter)	6000 – 12000 CPS
Viskosität 2 (Klebstoff)	40000 – 60000 CPS
Viskosität 2 (Härter)	6000 – 12000 CPS
Biegebindungsfestigkeit (AST M D790)	6000 PSI
Haltbarkeit	<18°C – 3 Jahre 18-25°C – 2.5 Jahre 25-30°C – 1.5 Jahre
Mischungsverhältnis (Klebstoff : Härter)	10:1

Lagerung & Haltbarkeit

In einer kühlen Umgebung (fern von Feuchtigkeit, Hitze und Licht) zwischen +5 — +18 0 C lagern.

Unter den oben genannten Bedingungen kann eine Haltbarkeit von 36 Monaten ab Herstellungsdatum erwartet werden.

Gesundheit & Sicherheit

Weitere Informationen finden Sie im Sicherheitsdatenblatt.

ERSTE HILFE: Bei Verschlucken ärztlichen Rat einholen.

Keine Panik! Bei Augen sofort mindestens 15 Minuten lang mit reichlich Wasser spülen (Augenlider offenhalten).

Für die Haut ein Lösungsmittel wie Aceton auf die Kontaktstellen auftragen und mit Wasser abwaschen.

Vorgehen bei Reklamationen

1. Erste Maßnahme:

Im Falle einer Reklamation sollte mindestens 1 Kartusche Klebstoff so schnell wie möglich zurückgeschickt werden, um den Fehler zu analysieren und zu bestätigen. Insbesondere im Falle einer reklamierten nicht-konformen Farbabstimmung.

2. Informationen, die wir vom Kunden erhalten müssen:

- Bild des Defekts und der Patrone - Produktionsdatum.
- Anzahl der fehlerhaften Kleber (zum Beispiel: 1 von 10).
- Auf welcher Oberfläche/Code wurde der Kleber verwendet.

Hinweis: Eine Verfärbung des Klebstoffs kann auch durch den Kunden verursacht werden, z.B. durch Schmutz/Staub vom Fräsen, Bürsten oder anderen Arbeitsvorgängen oder durch eine verschmutzte Arbeitsumgebung. Bitte vergewissern sich vorab, dass Sie diesen Fehler ausschließen können, bevor Sie diese Reklamation einreichen.

Description

Acrilove - is two-component multipurpose adhesive made specifically for most colorful indoor and outdoor materials such as: solid surface, engineered stone, plastics, ceramics, glass, natural stone, solid laminate, rubber, and steel.

Features

- Exceptional flexural strength up to 6000 PSI
- Perfect color match with any color of solid surface, quartz, and ceramics

Application Instructions

1. Preparation

Wear safety glasses and gloves before starting and at all times during work.

Make sure that the adhesive's color matches the color of the surface (use the Acrilove matching chart). If necessary, make a trial gluing using a scrap sheet.

Clean the gluing area from dust, degrease parts joints properly, prepare clamps and auxiliary tools. Insert the cartridge into the applicator in accordance with the applicator's instructions manual. Remove the protective cap by turning it by a quarter turn and then pulling it off the cartridge.

Inspect the cartridge, make sure it is clean, if necessary clean it from any possible contamination.

IMPORTANT

- a. Preliminary put the cartridge in a vertical position for 30 minutes - 1 hour.**
- b. Insert the cartridge into the dispenser VERTICALLY.**
- c. Move the applicator plunger close to the cartridge pistons and make one or two trial presses on the applicator lever.**
- d. After making sure that the adhesive and the hardener come evenly out from both nozzles, put a static mixer onto the cartridge and wrap it in a quarter turn. (In order to remove the mixer, repeat the steps in the reverse order).**
- e. In this position press the applicator lever several times BEFORE the components appear in the MIXER: glue and hardener to release the air (if any).**
- f. Gently press at the applicator lever to squeeze out a teaspoon of glue into the wastebin. The adhesive is now ready to use.**

Applying the adhesive

Apply the adhesive with an even roller for when compressing the surfaces are glued together, a slight squeeze-out of the excess glue will occur.

In invisible places, and where there is no increased demand for the cleanliness of the joint, leave an excess of the adhesive to add an extra strength to the seam.

It is necessary to assemble and compress the glued surfaces no later than 10 minutes after applying the adhesive.

When working, avoid over-tightening the clamps, as this can weaken the strength of the gluing seam.

2. Completing the work

After completing the work, remove the static cartridge mixer and put the protective cap back on. Store the cartridge with the adhesive in a dark, cool place until the next use.

Empty cartridges and used static mixers must be disposed according to your country regulations.

Clean Up

Clean-up excess glue with a cloth and/or clean with a solvent such as acetone or nail polish remover. Scrape.

Properties

Appearance (Adhesive)	Clear or colored viscous liquid
Appearance (Activator)	Clear viscous liquid
Working Time 1st option	10 – 15 minutes
Fixture Time 1st option	20 – 25 minutes
Sanding possible after	25 – 30 minutes
Working Time 2nd option	25 – 30 minutes
Fixture Time 2nd option	35 – 45 minutes
Sanding possible after	45 – 55 minutes
Viscosity 1 (Adhesive)	15000 – 25000 CPS
Viscosity 1 (Hardener)	6000 – 12000 CPS
Viscosity 2 (Adhesive)	40000 – 60000 CPS
Viscosity 2 (Hardener)	6000 – 12000 CPS
Flexural Bond Strength (ASTM D790)	6000 PSI
Shelf Life	<18°C – 3 years 18-25°C – 2.5 years 25-30°C – 1.5 years
Mix Ratio (Adhesive: Hardener)	10:1

Storage & Shelf Life

Store in a cool environment (away from humidity, heat, and light) between 5 + 18°C.
Under the above conditions, 36 months shelf life can be expected from date of manufacture.

Health & Safety

For more detailed information refer to Material Safety Data Sheet.

FIRST AID If swallowed seek Medical Advice.

Do not panic! For eyes, immediately irrigate with copious quantity of water at least 15 minutes (eyelids to be held open).

For skin apply a solvent such as acetone to contact areas then wash off with water.

Procedure in case of claims

1. First action:

In case of claims at least 1 pc of glue should be returned asap back on analysis and validation of defect. Especially in the case of claimed not-conform color matching.

2. Information's to forward to supplier:

- Picture of defect and cartridge - production date.
- Quantity of defective glues (for example: 1 out of 10).
- On which surface/code was the glue used.
- **Note:** Discolouration of the adhesive can also be caused by the customer, e.g., by dirt/dust from milling, brushing or other operations or by a dirty working environment. Please make sure that you can exclude this fault before submitting this claim.



TEST REPORT



98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea

TEL 82-43-211-6144

FAX 82-43-211-6148

Report No : TAK-2020-115673

Receipt Date : 2020.07.24.

Representative : YOO JUNG SEUK

Test Completion Date : 2020.08.07.

Company name : HYUNDAI L&C

Address : 1077, Cheonho-daero, Gangdong-gu, Seoul, Republic of Korea

Sample name : HANEX SOLID SURFACES

Test Results

TEST ITEM	UNIT	SAMPLE	RESULT	TEST METHOD	SITE
Compressive Strength(**)	MPa	-	118	ISO 604 : 2002	AK

** Specimen: Type B, Speed of Testing: 1 mm/min

- AK: 98, Gyoyukwon-ro, Gwacheon-si, Gyeonggi-do, 13810, Korea

- Usage of Report : QUALITY CONTROL

Note : 1. The test results of this test report are only limited in to the samples and sample names provided by the client and do not guarantee the quality of all products of the client. You Can check website (www.ktr.or.kr) or QR code to verify the authenticity of the certificate.

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3. This test report is only valid when printed on KTR original report paper with hologram and when re-issued by KTR. The copy and the electronic file of the test report are only for reference.

The above testing certificate is the accredited test result by Korea Laboratory Accreditation Scheme, which signed the ILAC-MRA.

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2020.08.07

Korea Testing & Research Institute

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President

Kwon Oh-jung



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