Haahr & Co. varenr.	**Declaration of Conformity for materials and articles made of glass, porcelain, ceramic and enamel**	Page:1 of 3 Gældende for Haahr & Co. A/S
Se bilag	Version nr. 1, 15.10.2012, DL	Ibrugtagningsdato/ Godkendt af 17/9-13 - DL

1	Haahr & Co. A/S Mådevej 20 6700 Esbjerg Tlf. +45 75 12 80 00 Fax +45 75 12 27 19 http://www.haahr-co.dk	
2	Identification of the product: • Name • Item No. • Description • Material • Photo	See AIF list attached

3	**General EU compliance:** These articles comply with the requirements of Regulation 1935/2004-EC, and is produced and handled in accordance with the requirements of good manufacturing practice in Regulation 2023/2006-EC. **Compliance with specific EU rules:** These articles comply with the requirements of contagion of lead and cadmium in Directive 84/500-EEC **Compliance with Danish rules:** These articles comply with the requirements of contagion of lead and cadmium from ceramic and enameled objects and glassware, given the Ordinance on Food Contact Materials # 822 of 26 June 2013.
4	These articles are suitable for contact with all types of food at the expected and foreseeable use. These articles are intended for contact with food at temperatures up to **ΔT 50°C for annealing items and Δ T 130 ° C for tempered items** up to _____ hours Representative samples of these, or similar articles, have been examined for compliance with the requirements of Section 3 and the articles in this lot are produced under similar conditions, using identical raw materials, from the same manufacturer. If the Danish Food Authorities so requests, Haahr & Co. A/S will provide the necessary background documentation.

ARC INTERNATIONAL FRANCE
Philippe CAZIER, AIF quality director

Arques, September 13, 2013

_____
Supplier name - Signature

_____
Date

Arc International France
Société par Actions simplifiée
Au Capital de 61 368 082 Euros
RCS Boulogne-sur-Mer 504 313 032
104 Avenue du Général De Gaulle
62510 ARQUES - France

Haahr & Co. varenr.	**Declaration of Conformity for materials and articles made of glass, porcelain, ceramic and enamel**	Page:3 of 3 Gældende for Haahr & Co. A/S
Se bilag	Version nr. 1, 15.10.2012, DL	Ibrugtagningsdato/ Godkendt af 17/9-13 DL

On behalf of Haahr & Co. A/S

HAAHR & CO. ISENKRAM A/S
MÅDEVEJ 20 - 6700 ESBJERG
TLF: 75 12 80 00 - FAX: 75 12 27 19

D. Jørgensen
Signature

17/9 - 2013
Date

Nummer	EAN Kode	Beskrivelse	Leverandørnr.	REF COMM AIF	MATIERE	DECORE
5000090	26102168066	GLASSKÅL EMP Ø 6 CM	53332	10011	SODO	N
5000095	26102168172	GLASSKÅL EMP Ø 7 CM	53332	10018	SODO	N
5000100	26102972144	GLASSKÅL EMP Ø 9 CM	53332	10040	SODO	N
5000105	26102972151	GLASSKÅL EMP Ø 10,5 CM	53332	10019	SODO	N
5000110	26102972175	GLASSKÅL EMP Ø 12 CM	53332	10000	SODO	N
5000115	26102972182	GLASSKÅL EMP Ø 14 CM	53332	10003	SODO	N
5000120	26102972212	GLASSKÅL EMP Ø 17 CM	53332	10027	SODO	N
5000125	26102800058	GLASSKÅL EMP Ø 20 CM	53332	10022	SODO	N
5000130	26102800256	GLASSKÅL EMP Ø 23 CM	53332	10021	SODO	N
5000135	26102800164	GLASSKÅL EMP Ø 26 CM	53332	9994	SODO	N
5000140	26102800096	GLASSKÅL EMP Ø 29 CM	53332	10029	SODO	N
5000297	883314153583	ASSIET SOLEIL 14,5 CM.	53332	J1368	SODO	N
5000320	26102273647	KANDE FLEUR 1,3 L	53332	6919	SODO	N
5000362	26102523490	KANDE CLASSIQUE 1,3 L	53332	52349	SODO	N
5000366	26102552391	KANDE PICHET 1,3 L.	53332	C0214	SODO	N
5000368	26102593196	KANDE PICHET 0,5 L	53332	C0215	SODO	N
5000380	26102284384	GLASKANDE TIVOLI 2,3 L	53332	28438	SODO	N
5000382	26102703618	GLASKANDE GLAS QUADRO 1,1 L	53332	70361	SODO	N
5000395	26102363416	GLASKANDE ARC BROC 0,5 L	53332	36341	SODO	N
5000400	26102363584	GLASKANDE ARC BROC 1,0 L	53332	36358	SODO	N
5000402	26102363669	GLASKANDE ARC BROC 1,3 L	53332	36366	SODO	N
5000403	26102530610	GLASKANDE ARC BROC 1,6 L	53332	53061	SODO	N
5000455	26102251102	VINKARAFFEL ARC 0,5 L |ARC	53332	C0197	SODO	N
5000456	26102330401	VINKARAFFEL ARC 0,5L| LUMINARC	53332	33040	SODO	N
5000460	26102396094	VINKARAFFEL ARC 1,0 L | ARC	53332	C0199	SODO	N
5000461	26102396094	VINKARAFFEL ARC 1 L| LUMINARC	53332	10291	SODO	N
5000555	26102009895	ØLKRUS BRITANIA 57 CL.	53332	989	SODO	N
5000560	26102600269	NORVEGE GLAS 16 CL	53332	60026	SODO	N
5000562	26102600245	NORVEGE GLAS 20 CL	53332	60024	SODO	N
5000564	26102616970	NORVEGE GLAS 25 CL	53332	61697	SODO	N
5000570	10026102043612	ØLKRUS HAWORTH 28 CL	53332	4361	SODO	N
5000572	10026102131920	ØLKRUS HAWORTH 57 CL	53332	13192	SODO	N
5000580	26102089446	CAMPUS 18 CL	53332	13823	SODO	N
5000582	26102089583	CAMPUS 22 CL	53332	13831	SODO	N
5000584	26102089538	CAMPUS 29 CL	53332	13849	SODO	N
5000600	883314349962	VANDGLAS STACK UP 21 CL. OB	53332	H5647	SODO	N
5000602	883314349948	VANDGLAS STACK UP 32 CL. OB	53332	H5646	SODO	N
5000604	883314345117	VANDGLAS STACK UP 29 CL. HB	53332	H7764	SODO	N
5000606	883314345100	VANDGLAS STACK UP 35 CL. HB	53332	H7763	SODO	N
5000608	883314349931	VANDGLAS STACK UP 40 CL. HB	53332	H5642	SODO	N
5000610	883314349924	VANDGLAS STACK UP 47 CL. HB	53332	H5641	SODO	N
5000694	26102259528	CABERNET COCKTAIL 30 CL.	53332	62449	SODO	N
5000696	26102259894	CABERNET CHAMPAGNE 16 CL	53332	48024	SODO	N
5000697	26102259818	CABERNET CHAMPAGNE 24 CL	53332	D0796	SODO	N
5000702	26102469798	CABERNET TULIPE 25 CL	53332	46978	SODO	N
5000704	26102259207	CABERNET TULIPE 35 CL	53332	46973	SODO	N
5000705	26102259191	CABERNET TULIPE 47 CL	53332	46961	SODO	N
5000707	26102259078	CABERNET TULIPE 58 CL	53332	46888	SODO	N
5000708	26102900635	CABERNET TULIPE 75 CL	53332	D0795	SODO	N
5000710	26102259412	CABERNET TULIPE 19 CL	53332	53468	SODO	N
5000712	26102149539	SNAPSGLAS GIN 3 CL.	53332	16	SODO	N
5000713	26102047613	GRANITY GLAS 4,5 CL	53332	4755	SODO	N
5000714	883314398465	GRANITY GLAS 16 CL. OB	53332	J2610	SODO	N
5000715	883314398458	GRANITY GLAS 20 CL. OB	53332	J2611	SODO	N
5000716	883314398489	GRANITY GLAS 27 CL.	53332	J2614	SODO	N
5000717	883314398427	GRANITY GLAS 31 CL. HB	53332	J2605	SODO	N
5000718	883314398441	GRANITY GLAS 35 CL.	53332	J2607	SODO	N
5000719	883314398410	GRANITY GLAS 42 CL. HB	53332	J2603	SODO	N
5000720	883314398403	GRANITY GLAS 46 CL. HB	53332	J2601	SODO	N
5000721	26102078211	ISLANDE DRINKSGLAS 6 CL.	53332	40375	SODO	N
5000722	26102078198	ISLANDE DRINKSGLAS 16 CL HB	53332	40367	SODO	N
5000723	26102078358	GLAS M/HANK ISLANDE 5,5 CL	53332	72388	SODO	N

5000724	26102078297	ISLANDE DRINKGLAS 20 CL OB	53332	J3312	SODO	N
5000725	26102078167	ISLANDE DRINKSGLAS 22 CL HB	53332	40359	SODO	N
5000726	26102078068	ISLANDE DRINKSGLAS 29 CL HB	53332	40342	SODO	N
5000728	26102078068	ISLANDE DRINKSGLAS 31 CL HB	53332	J4227	SODO	N
5000732	26102124062	ISLANDE DRINKSGLAS 33 CL HB	53332	J3310	SODO	N
5000733		ISLANDE DRINKSGLAS 30 CL OB	53332	J4239	SODO	N
5000734	26102077979	ISLANDE DRINKSGLAS 36 CL HB	53332	J4226	SODO	N
5000739	26102071250	ØLGLAS CERVOISE 32 CL	53332	7134	SODO	N
5000740	26102071243	ØLGLAS CERVOISE 38 CL	53332	7132	SODO	N
5000741	26102071236	ØLGLAS CERVOISE 50 CL | ARC	53332	7131	SODO	N
5000742	26102249482	ØLGLAS CERVOISE 62 CL	53332	24941	SODO	N
5000743	883314138832	ØLGLAS CERVOISE 50 CL	53332	E9342	SODO	N
5000748	883314141962	ØLGLAS WILLI BECHER 48 CL	53332	E9538	SODO	N
5000750	26102863268	ØLGLAS NONIC 34 CL	53332	43740	SODO	N
5000757	26102863251	ØLGLAS NONIC 28 CL	53332	43716	SODO	N
5000758	26102346778	ØLGLAS NONIC 57 CL	53332	49357	SODO	N
5000759	40026102246687	ØLGLAS WILLI BECHER 40 CL	53332	24668	SODO	N
5000760	40026102246694	ØLGLAS WILLI BECHER 63 CL	53332	24669	SODO	N
5000761	40026102246700	ØLGLAS WILLI BECHER 33 CL	53332	24670	SODO	N
5000763	26102716946	BALLON HVIDVIN 15 CL.	53332	11940	SODO	N
5000767	26102256275	CHAMPAGNEGLAS BALLON 17 CL	53332	25626	SODO	N
5000769	26102761700	BALLON 9,5 CL	53332	8876	SODO	N
5000771	26102716922	RØDVINSGLAS BALLON 25 CL	53332	11937	SODO	N
5000772	26102716939	HVIDVINSGLAS BALLON 19 CL	53332	11052	SODO	N
5000776	883314138726	BITTERGLAS HOT SHOT 3,4 CL	53332	E9331	SODO	N
5000777	26102066126	COGNACGLAS DEGUSTATION 15 CL	53332	1476	SODO	N
5000778	26102218839	BITTERGLAS HOT SHOT 3,4 CL	53332	21554	SODO	N
5000780	26102504635	RØDVINGLAS SAVOIE 35 CL	53332	50463	SODO	N
5000782	26102761403	RØDVINGLAS SAVOIE 24 CL	53332	27778	SODO	N
5000784	26102760314	HVIDVINGLAS SAVOIE 19 CL	53332	27786	SODO	N
5000787	883314109931	COGNACGLAS OMEGA 72 CL	53332	E7086	SODO	N
5000788	26102064542	COGNACGLAS DEGUSTATION 25 CL.	53332	2458	SODO	N
5000789	26102626658	COGNACGLAS DEGUSTATION 41 CL.	53332	62664	SODO	N
5000790	26102761410	CHAMPAGNEGLAS SAVOIE 17 CL.	53332	27810	SODO	N
5000795	26102258880	VANDGLAS LINELY 33 CL. HB	53332	U1540	SODO	N
5000796	26102258897	VANDGLAS LINELY 30 CL.	53332	U1533	SODO	N
5000797	26102259825	VINGLAS VERRE Á PIED LYRE 38CL	53332	D1292	SODO	N
5000798	883314138788	COGNACGLAS DEGUSTATION 25 CL.	53332	E9337	SODO	N
5000799	883314138771	COGNACGLAS DEGUSTATION 41 CL.	53332	E9336	SODO	N
5000802	26102763148	ELEGANCE PORTVIN 6,5 CL	53332	37264	SODO	N
5000804	26102763308	ELEGANCE HVIDVIN 12 CL	53332	37439	SODO	N
5000806	26102763124	ELEGANCE HVIDVIN 14,5 CL	53332	37249	SODO	N
5000807	26102763292	ELEGANCE CHAMPAGNEBOWLE 16 CL.	53332	37652	SODO	N
5000808	26102763315	ELEGANCE CHAMPAGNEGLAS 17 CL	53332	37298	SODO	N
5000810	26102763131	ELEGANCE RØDVIN 19 CL	53332	37413	SODO	N
5000812	26102763285	ELEGANCE RØDVIN 24,5CL	53332	37405	SODO	N
5000814	26102763278	ELEGANCE ØL/RØDVINSGLAS 31 CL	53332	50143	SODO	N
5000850	40026102123797	SCOTLAND GLAS 17 CL.	53332	12379	SODO	N
5000860	26102259689	CABERNET COCKTAIL 21 CL	53332	58001	SODO	N
5000861	26102468746	VIN DU RHIN 15,5 CL.	53332	2448	SODO	N
5000862	883314018219	HAWAII COCKTAIL 44CL	53332	E0530	SODO	N
5000864	26102259535	COCKTAIL MARGARITA 44 CL	53332	62447	SODO	N
5000866	883314289978	NEW AMERICA 30 CL. OB	53332	H1981	SODO	N
5000867	883314289954	NEW AMERICA 40 CL. OB	53332	H1984	SODO	N
5000876	26102306482	LONGCHAMP CHAMPAGNE 14 CL	53332	G5189	SODO	N
5000890	26102421734	ELEGANCE KARAFFEL 1 L.	53332	42173	SODO	N
5000892	26102763322	ELEGANCE CHAMPAGNE 13 CL	53332	56416	SODO	N
5000910	26102245293	SIGNATURE RØDVIN 35CL.	53332	24521	SODO	N
5000911	26102245163	SIGNATURE RØDVIN 25CL.	53332	24414	SODO	N
5000912	26102243015	SIGNATURE HVIDVIN 19 CL.	53332	24252	SODO	N
5000913	26102245200	SIGNATURE CHAMPAGNE 17 CL	53332	24518	SODO	N
5000925	26102900888	OPEN UP SWEET 27 CL.	53332	D1481	SODO	N
5000926	26102900635	OPEN UP UNIVERSAL 40 CL.	53332	D1458	SODO	N

5000927	26102900451	OPEN UP TANNIC 55 CL.	53332	E9041	SODO	N
5000928	26102880623	OPEN UP EFFERVESCENT 20 CL.	53332	U1051	SODO	N
5000929	26102900246	OPEN UP ROUND 37 CL.	53332	E9039	SODO	N
5000930	26102900840	OPEN UP SOFT 47 CL	53332	U1012	SODO	N
5000931	883314028461	OPEN UP VANDGLAS 38 CL.	53332	U1033	SODO	N
5000968	26102376850	IRISH COFFEE GLAS M/HANK 24 CL	53332	37684	SODO	N
5000970	26102579695	IRISH COFFEE GLAS M/STREG 24CL	53332	57966	SODO	N
5000980	26102432921	PORTIONSGLAS GLACE 21 CL	53332	26671	SODO	N
5000990	883314291193	GLASSKÅL BANANA SPLIT	53332	H2149	SODO	N
5001000	26102439210	PORTIONSGLAS SORBET COUPE 21CL	53332	50998	SODO	N
5001005	26102432938	PORTIONSGLAS SORBET COUPE 38CL	53332	43121	SODO	N
5001113	26102306451	LONGCHAMP VIN 25 CL	53332	G5186	SODO	N
5001128	26102252833	SKÅL COCOON 6 CM.	53332	41884	SODO	N
5001130	26102418826	SKÅL COCOON 12 CM.	53332	41882	SODO	N
5001131	26102418413	SKÅL COCOON 15 CM.	53332	41841	SODO	N
5001132	26102418796	SKÅL COCOON 18 CM.	53332	41879	SODO	N
5001133	26102418772	SKÅL COCOON 21 CM.	53332	41877	SODO	N
5001134	883314164459	SKÅL COCOON 24 CM.	53332	G1698	SODO	N
5001135	883314160697	SKÅL COCOON 28 CM.	53332	G1357	SODO	N
5001144	26102259511	PRIMARY TUMBLER 27 CL	53332	G0036	SODO	N
5001145	26102259610	PRIMARY TUMBLER 36 CL	53332	G3322	SODO	N
5001165	26102260005	CABERNET CHAMPAGNESKÅL 30 CL	53332	D6140	SODO	N
5001166	883314132083	CABERNET VIN JEUNES 35 CL	53332	E2788	SODO	N
5001167	883314132090	CABERNET VIN JEUNES 47 CL	53332	E2790	SODO	N
5001181	883314023367	OENOLOGUE CHAMPAGNE 26 CL	53332	U0952	SODO	N
5001189	26102579206	ROMAN RØDVIN 21 CL | LUMINARC	53332	E5068	SODO	N
5001190	26102585924	ROMAN RØDVIN 14 CL | LUMINARC	53332	E5069	SODO	N
5001209	26102307823	LONGCHAMP VANDGLAS 32 CL	53332	G5077	SODO	N
5001210	26102306468	LONGCHAMP VINGLAS 17 CL	53332	G5214	SODO	N
5001211	26102545591	LONGCHAMP COGNAC 32 CL	53332	G5218	SODO	N
5001213	26102589571	LONGCHAMP BITTER 6 CL	53332	G5223	SODO	N
5001216	26102639412	LONGCHAMP SHOT GLAS 4,5 CL	53332	G5228	SODO	N
5001217	26102589465	LONGCHAMP VANDGLAS 28 CL	53332	G5157	SODO	N
5001220	26102589588	LONGCHAMP VINGLAS 12 CL	53332	G5224	SODO	N
5001222	26102595213	LONGCHAMP VANDGLAS 23 CL	53332	G5225	SODO	N
5001223	26102805947	MASQUERADE RØDVIN 25CL	53332	G5544	SODO	N
5001224	26102806562	MASQUERADE HVIDVIN 18CL	53332	G5550	SODO	N
5001225	26102805671	MASQUERADE CHAMPAGNE 17CL	53332	G5543	SODO	N
5001226	26102805978	MASQUERADE WHISKY 30CL	53332	G5547	SODO	N
5001227	26102806005	MASQUERADE LONGDRINK 38CL	53332	G5549	SODO	N
5001236	26102980194	ØLGLAS VERTIGE 35CL	53332	14781	SODO	N
5001253	10026102624514	KARAFFEL DECANTA 2 LITER	53332	62451	SODO	N
5001258	26102006306	SKÅL COSMOS 23 CM	53332	E8859	SODO	N
5001260	26102006559	SKÅL COSMOS 17 CM	53332	H5360	SODO	N
5001261	26102023884	SKÅL COSMOS 14 CM	53332	64091	SODO	N
5001263	26102068908	SKÅL COSMOS 10 CM	53332	30361	SODO	N
5001310	26102751466	CITRONPRESSER HÆRDET GLAS	53332	75146	SODO	N
5001315	26102710029	SMØRSKÅL M/KO	53332	73115	SODO	N
5001400	883314185195	OPBEVARINGSBOKS GLAS 370 ML	53332	G8402	SODO	N
5001402	883314185201	OPBEVARINGSBOKS GLAS 760 ML	53332	G8412	SODO	N
5001404	883314185218	OPBEVARINGSBOKS GLAS 1160 ML	53332	G8404	SODO	N
5001406	883314185225	OPBEVARINGSBOKS GLAS 1890 ML	53332	G8403	SODO	N
5002010	26102214541	SALT & PEBERBØSSE GLAS	53332	633	SODO	N
5002325	26102418987	OCTIME KLAR LYSESTAGE	53332	41898	SODO	N
5002482	26102780459	BOLCHEGLAS POT CLUB 0,28LSMALL	53332	78045	SODO	N
5002484	26102582701	BOLCHEGLAS POT CLUB 0,5 L	53332	11266	SODO	N
5002486	26102635858	BOLCHEGLAS POT CLUB 0,75 L	53332	11972	SODO	N
5002488	26102569153	BOLCHEGLAS POT CLUB 1,0 L	53332	12404	SODO	N
5002489	26102713662	SYLTEGLAS, POT CONFITURE	53332	71989	SODO	N
5002490	26102582718	BOLCHEGLAS POT CLUB 1,5 L	53332	12252	SODO	N
5002492	26102348185	BOLCHEGLAS POT CLUB 1,5 L BIG	53332	34818	SODO	N
5002493	26102348192	BOLCHEGLAS POT CLUB 2,00 L BIG	53332	34819	SODO	N
5010138	26102414156	OSTEKLOKKE 2 DELE GLAS Ø27 CM.	53332	41415	SODO	N

5010250	883314140798	TALLERKEN VOLARE HVID 22,5 CM	53332	E9169	SODO	N
5010251	883314140804	TALLERKEN VOLARE HVID 23 CM	53332	E9167	SODO	N
5010252	883314140781	TALLERKEN VOLARE HVID 27 CM	53332	E9171	SODO	N
5010253	883314153590	SKÅL VOLARE HVID 16 CM.	53332	G0734	SODO	N
5010255	883314211399	SALATSKÅL VOLARE HVID 27 CM.	53332	G5352	SODO	N
5010270	883314261202	TALLERKEN VOLARE SORT 22,5 CM	53332	G9399	SODO	N
5010271	883314261233	TALLERKEN VOLARE SORT 23 CM	53332	G9402	SODO	N
5010272	883314231946	TALLERKEN VOLARE SORT 27 CM	53332	G7045	SODO	N
5010273	883314261240	SKÅL VOLARE SORT 16 CM.	53332	J1410	SODO	N
5010510	26102252796	KRUS 29 CL	53332	D6880	SODO	N
5010514	26102519462	KOP+UNDERKOP 16 CL ÆSKE Á 6	53332	51946	SODO	N
5010516	26102521083	DESSERTTALLERKEN 19,5	53332	H4124	SODO	N
5010518	26102286838	TALLERKEN FLAD 24,5 CM	53332	D6890	SODO	N
5010520	26102285954	TALLERKEN DYB 22,5 CM	53332	D6889	SODO	N
5010521	26102519172	OVALT FAD 35 CM	53332	E9667	SODO	N
5010528	26102246443	OVERKOP 13 CL | Ø: 7,0 H: 5,8	53332	22795	SODO	N
5010530	26102246498	OVERKOP 19 CL | Ø: 7,8 H: 6,5	53332	22837	SODO	N
5010535	26102509579	UNDERKOP 14 CM	53332	22720	SODO	N
5010540	26102511275	TALLERKEN FLAD 15,5 CM	53332	22506	SODO	N
5010545	26102511428	DESSERTTALLERKEN 19,5CM	53332	22530	SODO	N
5010550	26102511473	TALLERKEN DYB 22,6 CM	53332	22514	SODO	N
5010554	26102511626	TALLERKEN FLAD 23,5 CM.	53332	22522	SODO	N
5010555	26102511602	FROKOSTTALLERKEN 22,5CM	53332	29337	SODO	N
5010556	26102511640	TALLERKEN FLAD 25 CM	53332	24742	SODO	N
5010557	26102510810	YMERSKÅL COUPELLE 16 CL	53332	25293	SODO	N
5010558	26102491485	STEAKTALLERKEN OVAL 30 CM	53332	49145	SODO	N
5010559	26102567210	KRUS 25 CL	53332	36140	SODO	N
5010560	26102567197	KRUS 29 CL STABELBAR	53332	18316	SODO	N
5010595	26102863176	CHAMPAGNEKØLER ISLANDE	53332	52656	SODO	N

ARC INTERNATIONAL
France

26 November 2012

HAAHR

Ref. : PC/sl

Re :
See Haahr list 221112 attached

We, Arc International France, certify that these items are in conformity with
- Directive 10-2011 EEC on overall migration test of plastic material and articles intended to come into contact with foodstuffs.
- ISO 7086 and directives EC 84/500 & 1935/2004 (traceability = pallet) and do not present any risk as well from the health as hygiene point of view.

Arc International France
Société par Actions simplifiée
Au Capital de 61 368 082 Euros
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	GLASS DATA SHEET CLEAR SODALIME GLASS	Ref.	CL/sl
		Date	15/06/2012
		Page 1 of 1	

Last revision	New format		
Issued by	Ivan LITVINENKO-MOREL	Approved by	Rodolphe DELAVAL

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Chemical composition (Indicative average values in % of oxides)		Raw materials	Measurement method
SiO_2	72.5%	Sand	Chemical analysis using X-ray fluorescence
Na_2O	13.5%	Sodium carbonate	
CaO	11%	Calcium carbonate	
Al_2O_3	1.5%	Alumina / Feldspar	
MgO	1.5%	Dolomite	

PHYSICO-CHEMICAL PROPERTIES

Properties (Unit)	Value	Measurement method or Standards
Color (Lab* system)	94 < L* < 96 Iron content > 200 mg/kg (expressed in Fe_2O_3)	Total transmission measurement with a spectrophotometer at 1cm in C 2° according to CIE 15:2004
Melting temperature (Tf) in °C (approx.)	1460	ISO 7884 (1987)
Transformation temperature (Tg) in °C	550	
Softening temperature (Pr) in °C	600	
Average thermal expansion coefficient ($E^{-7}K^{-1}$)	90 ± 3	ISO 7991 (1987) between 20°c and 300°C
Density	2.5	Pycnometer
Refractive index	1.52	Refractometer
Thermal conductivity ($W.m^{-1}.K^{-1}$)	1.05 at 20°C	
Specific heat ($cal.°C^{-1}.g^{-1}$)	0.24	

CHEMICAL DURABILITY

Durability	Class	Standard
Hydrolytic resistance at 98°C	HGB 3	ISO 719
Alkali resistance	A1	ISO 695
Acid resistance	1	DIN 12116

FUNCTIONAL USES

Use	Standard	Annealed	Tempered	ΔT 100
Dishwasher resistance	EN 12875-2	Yes	Yes	Yes
Thermal shock resistance	EN 1183	ΔT 50°C	ΔT 130°C	ΔT 100°C
Microwave oven	EN 15284	No	Yes	Yes
Oven	EN 13834	No	No	No
Hot plate / flame / ceramic hob	EN 12983-2	No	No	No

	GLASS DATA SHEET KWARX	Ref.	CL/sl
		Date	15/06/2012
		Page 1 of 1	

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Chemical composition (Indicative average values in % of oxides)		Raw materials	Measurement method
SiO2	72.5%	Sand	Chemical analysis using X-ray fluorescence
Na2O	13.5%	Sodium carbonate	
CaO	11%	Calcium carbonate	
Al2O3	1.5%	Alumina / Feldspar	
MgO	1.5%	Dolomite	

PHYSICO-CHEMICAL PROPERTIES

Properties (Unit)	Value	Measurement method or Standards
Color (Lab* system)	Clear glass L* ≥ 98 C* ≤ 0.5 Iron content ≤ 200 mg/kg (expressed in Fe2O3)	According to IWA8 standard "Glass clarity" Internal transmission measurement with a spectrophotometer at 2 cm in D65 10°
Melting temperature (Tf) in °C (approx.)	1460	ISO 7884 (1987)
Transformation temperature (Tg) in °C	550	
Softening temperature (Pr) in °C	600	
Average thermal expansion coefficient ($E^{-7}K^{-1}$)	90 ± 3	ISO 7991 (1987) between 20°c and 300°C
Density	2.5	Pycnometer
Refractive index	1.52	Refractometer
Thermal conductivity ($W.m^{-1}.K^{-1}$)	1.05 at 20°C	
Specific heat ($cal.°C^{-1}.g^{-1}$)	0.24	

CHEMICAL DURABILITY

Durability	Class	Standard
Hydrolytic resistance at 98°C	HGB 3	ISO 719
Alkali resistance	A1	ISO 695
Acid resistance	1	DIN 12116

FUNCTIONAL USES

Use	Standard	Annealed
Dishwasher resistance	EN 12875-2	Yes
Resistance to thermal shock	EN 1183	ΔT 50°C
Microwave oven	EN 15284	No
Oven	EN 13834	No
Hot plate / flame / ceramic hob	EN 12983-2	No

KWARX'S ASSETS

STRONG Kwarx

BRIGHT Kwarx

PURE Kwarx

→ One of the most* resistant glass materials

→ After more than 300 cycles in domestic dishwasher / 2000 cycles in industrial dishwasher*, Kwarx retains exceptional transparency and unaltered lustre.

→ Exceptional transparency and minimum discoloration rate

Kwarx ADVANCED MATERIAL

	GLASS DATA SHEET ZENIX	Ref.	CL/sl
		Date	15/06/2012
		Page 1 of 1	

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Chemical composition (Indicative average values in % of oxides)		Raw materials	Measurement method
SiO_2	72%	Sand	Chemical analysis using X-ray fluorescence
Na_2O	12%	Sodium carbonate	
CaO	1.5%	Calcium carbonate	
Al_2O_3	8%	Alumina	
BaO	2.5%	Barium carbonate	
F_2	5%	Sodiumfluosilicate	
K_2O	1.5%	Nepheline	

PHYSICO-CHEMICAL PROPERTIES

Properties (Unit)	Value	Measurement method or Standards
Color (Lab* system)	Opaque "bone" color	Total transmission measurement with a spectrophotometer at 1cm in D65 10° according to CIE 15:2004
Melting temperature (Tf) in °C (approx.)	1510	ISO 7884 (1987)
Transformation temperature (Tg) in °C	505	
Softening temperature (Pr) in °C	585	
Average thermal expansion coefficient ($E^{-7}K^{-1}$)	82 ± 3	ISO 7991 (1987) between 20°c and 300°C
Density	2.41	Pycnometer
Refractive index	1.47	Refractometer
Thermal conductivity ($W.m^{-1}.K^{-1}$)	-	
Specific heat ($cal.°C^{-1}.g^{-1}$)	0.24	

CHEMICAL DURABILITY

Durability	Class	Standard
Hydrolytic resistance at 98°C	HGB 2	ISO 719
Alkali resistance	A2	ISO 695
Acid resistance	1	DIN 12116

FUNCTIONAL USES

Use	Standard	Tempered
Dishwasher resistance	EN 12875-2	Yes
Resistance to thermal shock	EN 1183	ΔT 130°C
Microwave oven	EN 15284	Yes
Oven	EN 13834	No
Hot plate / flame / ceramic hob	EN 12983-2	No

ZENIX'S ASSETS

→ Outstanding mechanical resistance
→ Scratch resistance never reached before
→ Premium Quality: both sides perfectly homogeneous
Bone color: Elegant and natural. Subtle. warm color.

Zenix® Fine Quality ● High Resistance