



PRODUCT SPECIFICATION

(OFFER)

No 14

d/TP/4a

Edition 4st

p. 1

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1. Name / chemical formula

SODIUM WATER GLASS / Na₂O·nSiO₂·nH₂O

2. General characteristic

Opalescent or clear liquid without smell.

3. Physical-chemical requirements (standart of quality ZN-02/Z.Ch. „Rudniki” SA/257)

<i>Demands:</i>	<i>Type</i>								
	150	149	145	142	140	137	145M	145S	150S
Mole ratio SiO ₂ /Na ₂ O	1,9÷2,1	2,8÷3,0	2,4÷2,6	2,6÷2,8	2,9÷3,1	3,2÷3,4	2,1÷2,3	2,3÷2,6	2,2÷2,4
Na ₂ O+SiO ₂ % min.	40,0	42,5	39,0	38,0	36,0	35,0	39	42,0	42,0
Density (20° C g/cm ³)	1,50 ÷1,53	1,49 ÷1,51	1,45÷1,48	1,42÷1,45	1,40 ÷1,43	1,37 ÷1,40	1,45 ÷1,48	1,52 ÷1,56	1,50 ÷1,53
Fe ₂ O ₃ % max	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01	0,01
CaO % max	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Water insoluble sub. (% max.)	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,1
filtered water glass (% max.)	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02	0,02
Viscosity 20° C (P) min.	1	7	1	1	0,5	1	1	5	1

<i>Demands:</i>	<i>Type</i>						
	151-1,7	150-2,3	144-2,6	137-3,2	133-3,2	132-3,4	130-3,3
Mole ratio SiO ₂ /Na ₂ O	1,65-1,85	2,3-2,4	2,6-2,8	3,2-3,4	3,2-3,5	3,40-3,50	3,3-3,4
Na ₂ O+SiO ₂ % min.	42÷44	42,0	39,0	35,0	32,0	32,0	29,0
Density (20° C g/cm ³)	1,51 -1,57	1,500-1,530	1,44 -1,47	1,37-1,40	1,33-1,36	1,32 -1,34	1,300-1,330
Fe ₂ O ₃ % max	0,01	0,01	0,01	0,01	0,01	0,01	0,01
CaO % max	0,1	0,1	0,1	0,1	0,1	0,1	0,1
Water insoluble sub. (% max.)	0,1	0,1	0,1	0,1	0,1	0,1	0,1
filtered water glass (% max.)	0,02	0,02	0,02	0,02	0,02	0,02	0,02
Viscosity (cP)			-	85÷120 (25°C)	-	30÷60 (20°C)	20÷40 (20°C)
Coagulating treshold			3,8÷4,2				

At client's request the producer provides with another types of sodium water glass.

4. Applications

Production of washing agents and refractories. Gluing and bleaching of products in paper industry. Preparing mould frames in foundries and steel industry. Sealing supplement for mixture in building industry.

5. Indications for industrial safety & fire protection

Risk to serious damage to eyes. Due to its high alkalinity the product may cause strong irritation of skin. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves and eye or face protection.

Non-flammable.

6. Packing & transportation

Railway and car tanks, metal containers. The product is a safe material according to RID & ADR rules. Certificate no 072/IPO/2003.

7. Storage

Tightly closed containers equipped with heating devices.

8. Ecological information - waste treatment

Spilled sodium water glass should be mixed with sand in order to consolidate. The mass should be mixed with H₂SO₄ to the neutral pH level. During neutralization silica becomes a jelly-like mixture. Precipitate silica should be put to containers and recycled in the way indicated by local office of environment protection.