

CERTIFICATE OF CONFORMITY No. TEST/6/CZ/2014

- (1) Name and address of applicant/distributor: **TEKNO HOSE S.p.A.**
Via Cardito SS.90 delle Puglie km 20.500,
83031 Ariano Irpino (AV) – Italy
- (2) Name and address of manufacturer: **TEKNO HOSE S.p.A.**
Via Cardito SS.90 delle Puglie km 20.500,
83031 Ariano Irpino (AV) – Italy
- (3) Product name: **High-pressure hydraulic hoses**
- (4) Type: **2SN DN: 6, 8, 10, 12, 16, 19, 25, 31, 38, 51;
2ST DN: 6, 8, 10, 12, 16, 19, 25, 31, 38, 51.**
- (5) The product meets the requirements of the following standards:
- | | | |
|--|---|--|
| PN-EN 853:1999
(EN 853:1996) | PN-EN 853:1999/Ap1:2002 | PN-EN 853:1999/AC:2007
(EN 853:1999/AC:2007) |
| PN-EN 13463-1:2010
(EN 13463-1:2009) | PN-EN 1804-3+A1:2012
(EN 1804-3:2006+A1-1:2010) | PN-G-32010:2012 |
- (6) This product has been determined in the included Schedule. The Schedule includes the list of agreed documents, examinations performed and may also include possible supplements to this certificate.
- (7) No. and date of product assessment report:
TEST/RW/28/CZ/13/PK/2014 of 11 March 2014
- (8) This certificate is valid in its entirety, schedule(s) included.
- (9) The certificate is issued according to the certification system 3.
- (10) The right for using this Certificate relates only to the product item(s) having properties (parameters) identical to those of the model assessed, specified above and in the annex to normative documents.
- (11) This Certificate is valid: **from 12 March 2014 until 11 March 2017.**



Kierownik Jednostki
OPINIUJĄCEJ, ATESTUJĄCEJ
I CERTYFIKUJĄCEJ WYROBY
TEST Sp. z o.o.

Ireneusz Adamus

Siemianowice Śl., 12 March 2014

SCHEDULE

(12)

(13) **CERTIFICATE OF CONFORMITY No. TEST/6/CZ/2014**

(14) Application:

The high-pressure hydraulic hoses of 2SN and 2ST types are the constituent elements of the hydraulic hose assemblies that represent the final product after having been provided with the fittings. The hose assemblies are designed for supply of high-pressure hydraulic systems in machines and equipment, using such working media as: mineral oils, water-oil emulsions, water solutions of glycol, antifreeze substances, water and air.

They can be used in underground mines, in potentially explosive atmospheres.

Moreover, the high-pressure hydraulic hoses of 2SN and 2ST types, meet the test conditions specified in the standards of research:

PN-EN ISO 1402:2010
(EN ISO 1402:2009)

PN-EN ISO 6803:2008
(EN ISO 6803:2008)

PN-EN ISO 6945:2002
(EN ISO 6945:1996)

PN-EN ISO 8030:1999
(EN ISO 8030:1997)

PN-EN ISO 8031:2010
(EN ISO 8031:2009),

included in the examinations reports listed in points (16): 1.2, 2, 3 and 4 of this Schedule.

(15) Technical parameters:

1. Parameters of 2SN hydraulic hoses:

DN	Internal diam.	Braid outer diam.	Outer diam.	Max. working pressure		Max. burst pressure		Min. bend radius	Mass
	mm	mm	mm	Psi	bar	Psi	bar	mm	Kg/m
6	6,4	12,6	14,6	5800	400	23200	1600	100	0,355
8	7,9	14,3	16,3	5070	350	20280	1400	115	0,420
10	9,5	16,7	18,7	4780	330	19120	1320	130	0,530
12	12,8	19,8	21,8	3980	275	15920	1100	180	0,630
16	16,0	23,0	25,0	3620	250	14480	1000	200	0,735
19	19,0	27,0	29,0	3110	215	12440	860	240	0,955



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DN	Internal diam.	Braid outer diam.	Outer diam.	Max. working pressure		Max. burst pressure		Min. bend radius	Mass
	mm	mm	mm	Psi	bar	Psi	bar	mm	Kg/m
25	25,4	34,9	36,9	2390	165	9560	660	300	1,340
31	31,8	44,3	46,7	1810	125	7240	500	420	1,900
38	38,1	50,8	53,8	1300	90	5200	360	500	2,250
51	50,8	63,5	66,5	1160	80	4640	320	630	3,200

2. Parameters of 2ST hydraulic hoses:

DN	Internal diam.	Braid outer diam.	Outer diam.	Max. working pressure		Max. burst pressure		Min. bend radius	Mass
	mm	mm	mm	Psi	bar	Psi	bar	mm	Kg/m
6	6,4	12,6	17,5	5800	400	23200	1600	100	0,440
8	7,9	14,3	19,1	5070	350	20280	1400	115	0,510
10	9,5	16,7	21,4	4780	330	19120	1320	130	0,660
12	12,8	19,8	24,6	3980	275	15920	1100	180	0,800
16	16,0	23,0	27,8	3620	250	14480	1000	200	0,900
19	19,0	27,0	31,8	3110	215	12440	860	240	1,150
25	25,4	34,9	39,7	2390	165	9560	660	300	1,550
31	31,8	44,3	50,8	1810	125	7240	500	420	2,380
38	38,1	50,8	57,2	1300	90	5200	360	500	2,800
51	50,8	63,5	69,8	1160	80	4640	320	630	3,510

(16) Product related documents

1. Technical Documentation: Hydraulic hoses of 2SN, 2ST, 4SH, 4SP and R13 types of 11 June 2013, including:
 - 1.1. Technical standards;
 - 1.2. Examination reports;
 - 1.3. Declarations;
 - 1.4. Instructions relating to hydraulic hoses of 2SN, 2ST, 4SH, 4SP and R13 types, including:
 - 1.4.1. Safety instructions and basis coefficients necessary for selection, installation and maintenance of hoses and fittings,



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- 1.4.2. Correct assembly installation,
 - 1.4.3. 2SN – Technical Data,
 - 1.4.4. 2ST – Technical Data,
 - 1.4.5. 4SH – Technical Data,
 - 1.4.6. 4SP – Technical Data,
 - 1.4.7. R13 – Technical Data,
 - 1.4.8. Hose Branding.
2. Examination Report No. LT/009/2014 – Examination of high-pressure hydraulic hoses of 2SN, 2ST, 4SP, 4SH types, production of TEKNO HOSE S.p.A., executed to order of VST Sp. z o.o. in Łaziskach, developed by Laboratorium Badawcze Jednostki Opiniującej, Atestującej i Certyfikującej Wyroby TEST Sp. z o.o. (Examination Laboratory of the “TEST” Product Assessment, Approval and Certification Body Ltd.) in Siemianowice Śląskie, on 12 February 2014
 3. Examination Report No. 11/14/SM2 of 29 January 2014 – Examination of TEKNO 2SN and TEKNOSPIR 4SP hydraulic hoses – developed by Material Engineering Department of the Central Mining Institute in Katowice.
 4. Toxicity and harmfulness assessment of the plastic material used in 2SN, 2ST, 4SP, 4SH high-pressure hydraulic hoses, on the basis of submitted documents and laboratory examination results, developed in February 2014 by the Environmental Medicine and Epidemiology Department of Silesian Medical University in Zabrze.
 5. Quality Management System Certificate No. 11750/04/S proving the meeting of ISO 9001:2008 requirements, issued to the company TEKNO HOSE S.p.A in Arlano Irpino – Italy, on 11 October 2004 and valid until 6 October 2016.
- (17) Conditions of usage:
- The 2SN and 2ST high-pressure hydraulic hoses shall be used within the maximum working pressure of one of the assembly components, i.e. the hose or the fittings.
- This Certificate may be published together with the Schedule in the unchanged form. Partial reproduction and publication of this Certificate is forbidden.



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