CERTIFICATE OF CONFORMITY
No. TEST/5/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: **4SH DN: 19, 25, 31, 38, 51;**

4SP DN: 6, 10, 12, 16, 19, 25, 31, 38, 51.

(5) The product meets the requirements of the following standards:

PN-EN 856:2002 (EN 856:1996)
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/27/CZ/13/PK/2014 of 10 March 2014

(8) This certificate is valid in its entirely, 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.**

Jednostka Opiniująca, Atestująca i Certyfikująca Wyroby Akredytowana TEST AC 140 TEST Sp. z o.o.

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

Siemianowice Śl., 12 March 2014

(12) # SCHEDULE

(13) **CERTIFICATE OF CONFORMITY No. TEST/5/CZ/2014**

(14) Application:

The high-pressure hydraulic hoses of 4SH and 4SP 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 4SH and 4SP 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 4SH 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
19	19,0	28,2	32,2	6090	420	24360	1680	280	1,600
25	25,4	35,3	38,1	5580	385	22320	1540	340	1,950
31	31,8	41,9	45,5	5070	350	20280	1400	460	2,450
38	38,1	49,1	53,5	4350	300	17400	1200	560	3,410
51	50,8	63,5	68,0	3620	250	14480	1000	700	4,520

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Ireneusz Adamus

JOAiCW TEST Sp. z o.o., 41-103 Siemianowice Śląskie, ul. Wyzwolenia 14
Tel./Fax. +48 32 7308200, www.joac-test.pl

2. Parameters of 4SP 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	14,7	17,9	7250	500	29000	2000	150	0,600
10	9,5	17,5	21,4	6650	460	26600	1840	180	0,780
12	12,8	20,2	24,6	6150	425	24600	1700	230	0,920
16	16,0	23,8	28,2	5800	400	23200	1600	250	1,155
19	19,0	28,2	32,2	5500	380	22000	1520	300	1,520
25	25,4	35,3	39,0	4600	320	18400	1280	340	2,000
31	31,8	46,0	50,2	3000	210	12000	840	460	3,000
38	38,1	52,4	57,0	2650	185	10600	740	560	3,650
51	50,8	65,4	70,8	2550	175	10200	700	660	5,250

(16) Product related documents

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

Jednostka Opiniująca, Atestująca i Certyfikująca Wyroby Jednostka Akredytowana TEST AC 149 TEST Sp. z o.o.

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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 Ariano Irpino – Italy, on 11 October 2004 and valid until 6 October 2016.

(17) Conditions of usage:

The 4SH and 4SP 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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