



INSTITUTE FOR TESTING AND CERTIFICATION, INC.

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REPORT ON SUPERVISION

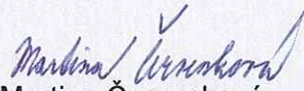
of a certified product
reference No. 3435 07845/2020

Client: **HIDROTEN, S. A.**
P.I.Pla Vallonga, C/7, Parcela 37
03006 Alicante
Spain

Product: **Adapting pieces and fittings of PVC-U joined by**
gluing or by means of threads, PN 6 – PN 16,
d 10 mm – d 630 mm, for systems of pressure
distribution of drinking water and other media

Manufacturer: **HIDROTEN, S. A.**
P.I.Pla Vallonga, C/7, Parcela 37
03006 Alicante
Spain

Certificate number: 09 0711 V/AO

Inspection carried out by: 
Martina Červenková

Date of issue: 17th March 2020




Mgr. Jiří Heš

Representative of Authorized Body



I. Method and extent of inspection

The inspection included verification of conformity of selected properties of the certified product with the requirements given in the specified standards, namely ČSN EN ISO 1452-3, ČSN EN ISO 1452-4 and ČSN EN ISO 1452-5.

The product inspected is as follows:

adapting pieces and fittings of unplasticized PVC (PVC-U) joined by gluing or by means of threads, PN 6 – PN 16, d 10 mm – d 630 mm, for systems of pressure distribution of drinking water and of other media.

Client requesting the service: HIDROTEN, S. A., P.I.Pla Vallonga, C/7, Parcela 37, 03006 Alicante, Spain.

Institut pro testování a certifikaci, a.s. (Institute for Testing and Certification), in Zlín, Czech Republic, issued a certificate No. 09 0711 V/AO. The certificate was elaborated on the basis of the Final Test Report No. 7935 00844/2009 dated 19th October 2009. The certificate was issued by Institut pro testování a certifikaci, a.s. (Institute for Testing and Certification) – Authorized Body (AO) No. 224, in Zlín, Czech Republic, on 19th October 2009.

The inspection tests were carried out to check whether the specified requirements for the product had been met. The product characteristics examined were as follows:

- appearance, performance, marking
- determination of dimensions according ČSN EN ISO 3126
- Vicat softening temperature according ČSN EN ISO 2507-1
- methods for visually assessing the effects of rating according ČSN EN ISO 580
- determination of the resistance to internal pressure according ČSN EN ISO 1167-1, 3.

The supervision of the operation of the factory production control system took place on 27th June 2018 at the manufacturer's facility of the company HIDROTEN, S. A., P.I.Pla Vallonga, C/7, Parcela 37, 03006 Alicante, Spain, and is documented by the document as follows:

Inspection of the factory production control (in surveillance) at the manufacturing plant of the company HIDROTEN, S. A., P.I.Pla Vallonga, C/7, Parcela 37, 03006 Alicante, Spain, dated 27th June 2018.

The above document has been recognized as sufficient for demonstration of the fact that the manufacturer has assured a proper operation of the factory production control system for the product under certification.

II. Sampling

As required by AO (Authorized Body) No. 224 samples as follows were taken:

- 6 pcs fittings – elbow of PVC-U, d 32 mm, 90°, PN 16, EN ISO 1452, color gray.
Registration number of the samples: 343507845/1.
- 1 pc assembly of PVC-U pipe with 3 pcs fittings of PVC-U, d 32 mm, PN 16, EN ISO 1452, color gray.
Registration number of the sample: 343507845/2.

III. Test result

The test by the samples 343507845/1 and 343507845/2 were carried out by Institut pro testování a certifikaci, a. s., (Institute for Testing and Certification) in Zlín – Accredited Testing Laboratory No. 1004, between 20th January 2020 and 25th February 2020.

The test results obtained are given in Tables I and II. The result in Table III is carried out by AIMPLAS Instituto Tecnológico del Plástico, Italy.

Table I – fitting of PVC-U – elbow 90°, d 32 mm, PN 16, EN ISO 1452, color gray. Registration number of the samples: 343507845/1.

Technical characteristics	Measuring unit	Technical characteristics level	Value obtained	Determination procedures (test methods)
Appearance, performance	-	ČSN EN ISO 1452-3, čl. 5	satisfies ¹⁾	visually
Marking	-	ČSN EN ISO 1452-3, čl. 13	satisfies ²⁾	visually
Mean inside diameter– d _{im}	mm	32,1 – 32,3	32,1	ČSN EN ISO 3126
Minimum length of the neck – L _{min}	mm	min. 22	22,5	ČSN EN ISO 3126
Methods for visually assessing the effects of rating ³⁾	-	ČSN EN ISO 1452-3, tab. 23	satisfies ⁴⁾	ČSN EN ISO 580

¹⁾ The outer and inner surface of the fitting is clean, smooth, without grooves, blistering, dirt, pores and other surface irregularities. The color gray.

²⁾ In the fitting with the following data: PVC PN-16 Ø-32 6

The packaging is a label glued fittings where is the name of the manufacturer „hidrotén“, diameter, fittings marking the angle, the type of box, made in Spain, the number of international standard 1452.

³⁾ Test conditions: temperature (150 ± 2) °C, time temperance 30 min., 3 pcs specimens - fittings.

⁴⁾ For all 3 pcs of specimens – fitting evaluated: injection molded parts show no signs of blisters or cold joints, no damage to the surface at the site of injection doesn't penetrate deeper than 20 % wall depth at the site. Outside the area of injection outer surface shows no surface damage.

Table II – assembly of PVC-U pipe with 3 pcs fittings of PVC-U, d 32 mm, PN 16, EN ISO 1452, color gray. Registration number of the sample: 343507845/2.

Technical characteristics	Measuring unit	Technical characteristics level	Value obtained	Determination procedures (test methods)
Determination of the resistance to internal pressure ¹⁾	h	≥ 1	> 1 ²⁾	ČSN EN ISO 1167-1,4

¹⁾ Test conditions: testing pressure $4,2 \times PN = 67,2$ bar, 1 pc test specimen - assembly, temperature $(20 \pm 1) ^\circ\text{C}$, test time period (duration of the test) 1 hour, nature of medium test – water, vertical position.

²⁾ The test was terminated without any failure (no break) of 1 pc test specimen - assembly.

Table III – fittings of PVC-U – elbow 90°, d 50 mm, PN 16, EN ISO 1452, color gray. ¹⁾

Technical characteristics	Measuring unit	Technical characteristics level	Value obtained	Determination procedures (test methods)
Vicat softening temperature ²⁾	$^\circ\text{C}$	≥ 74	74,1	EN ISO 2507-1

¹⁾ The result was taken from the test report AT-2050/19 elaborated by AIMPLAS Instituto Tecnológico del Plástico, Italy, on 11th November 2019.

²⁾ Test conditions: high temperature bath, immersion liquid: silicon oil, charge 50 N, method B50, heating speed $50 ^\circ\text{C/hod}$.

IV. Evaluation of results obtained

The certified product **meets** the requirements as regards the characteristics examined.

The operation of the factory production control system was supervised in the extent of a check-list – Inspection of the factory production control (in surveillance). Meeting of the requirements by the manufacturer is described in the check-list.

V. Conclusion

Based on the inspection tests, **conformity** of the selected properties of the certified product with the requirements of the specified ČSN EN ISO 1452-3, ČSN EN ISO 1452-4 and ČSN EN ISO 1452-5 standards in the characteristics monitored **was shown**.

The result of the inspection demonstrated that no change in the essential properties of the certified product had occurred.



In carrying out the surveillance at the manufacturer's facility 17 elements of factory production control system were assessed. As a result 5,9 % of non-compliances were found. The factory production control system complies with the appropriate technical documentation and assures that the products placed on the market meet the technical specification.

Result: **satisfactory**.

VI. A list of documents used to elaborate the Report

- Zkušební protokol akreditované laboratoře (Accredited Laboratory Test Report), reference No. 343507845-01, elaborated by Institut pro testování a certifikaci a. s. (Institute for Testing and Certification) – Accredited Laboratory No. 1004, in Zlín, Czech Republic, on 25th February 2020
- Test report AT-2050/19 elaborated by AIMPLAS Instituto Tecnológico del Plástico, Italy, on 11th November 2019
- Certificate No. 09 0711 V/AO issued by Institut pro testování a certifikaci a. s. (Institute for Testing and Certification) - AO (Authorized Body) No. 224 at Zlín, on 19th October 2009
- Final Test Report No. 7935 00844/2009 elaborated by Institut pro testování a certifikaci a. s. (Institute for Testing and Certification), Authorized Body No. 224, in Zlín, Czech Republic, on 19th October 2009
- ČSN EN ISO 1452-3 „Plastové potrubní systémy pro rozvod vody a tlakové kanalizační přípojky a stokové sítě uložené v zemi i nadzemní - Neměkčený polyvinylchlorid (PVC-U) - Část 3: Tvarovky“ (ČSN EN ISO 1452-3: Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure – Unplasticized poly(vinyl chloride) (PVC-U) – Part 3: Fittings)
- ČSN EN ISO 1452-4 „Plastové potrubní systémy pro rozvod vody a tlakové kanalizační přípojky a stokové sítě uložené v zemi i nadzemní - Neměkčený polyvinylchlorid (PVC-U) - Část 4: Ventily“ (ČSN EN ISO 1452-3: Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure – Unplasticized poly(vinyl chloride) (PVC-U) – Part 4: Valves)
- ČSN EN ISO 1452-5 „Plastové potrubní systémy pro rozvod vody a tlakové kanalizační přípojky a stokové sítě uložené v zemi i nadzemní - Neměkčený polyvinylchlorid (PVC-U) - Část 5: Vhodnost použití systému“ (Plastics piping systems for water supply and for buried and above-ground drainage and sewerage under pressure – Unplasticized poly(vinyl chloride) (PVC-U) – Part 5: Fitness for purpose of the system)
- Inspection of the factory production control (in surveillance) at the manufacturing plant of the company HIDROTEK, S. A., P.I.Pla Vallonga, C/7, Parcela 37, 03006 Alicante, Spain, dated 27th June 2018.