

**Inspection report:** 350718/1.1/132106

**Client:** Valsir S.p.A.  
Loc. Merlaro, 2  
IT-25078 VESTONE (BS)

**Production plant:** IT-25079 VOBARNO (BS)

**Third party control:** 1<sup>st</sup> half-year 2018

**Production group:** 1

**Product:** Heating pipes  
Pipe PE-Xb Ø 14 x 2.0 mm  
Material: Polidan T/A  
Trade name: THERMOLINE

**SKZ-mark no.:** A 364

**Letter of:** --- **Reference:** ---

**Samples received:** 2018-08-08 **Sampling:** 2018-06-25

**Test period:** 2018-09-11 to 2018-10-24

**Result:** The requirements of the HR 3.2:2015-04 specification for tests and inspection of SKZ - Testing GmbH are met.

The original language of the inspection report is German. In case of doubt, the German version is obligatory.

The inspection report comprises 3 pages.

Würzburg, 2018-11-30  
Lä/stei

*Lg*  
i. V.   
Dipl.-Ing. Christian Winkler MBE



i. A.   
Dipl.-Ing. Bernhard Stanzel

Die auszugsweise Wiedergabe, Vervielfältigung und Übersetzung dieses Berichtes bedarf der schriftlichen Genehmigung der SKZ - Testing GmbH. Die Ergebnisse beziehen sich auf die geprüften Produkte. Der Akkreditierungsumfang kann im Internet unter [www.skz.de](http://www.skz.de) eingesehen werden.

### 1. Inspection scope

The inspection scope complies with the HR 3.2:2015-04 specification for tests and inspection of SKZ - Testing GmbH.

### 2. Sampling

The samples were taken by Mrs. Metzung of SKZ - Testing GmbH on 25 June 2018 at the production plant in IT-25079 VOBARNO (BS).

### 3. Results

3.1 Marking: valsir THERMLINE EVOH Pe-Xb MADE IN ITALY Ø 14x2 C SKZ A364 ISO 15875-2 Class 5/10 bar DIN 16893 S3.2 PN20 DIN 4726 SAUERSTOFFDICHT FUSSBODENHEIZUNG 21:38 29/03/18 m.193 V 1296

3.2 Colour: natural-coloured

3.3 Surface finish and condition as delivered: without objection

3.4 Dimension

designation	actual value in mm		set value <sup>1</sup> in mm	
	maximum	minimum	maximum	minimum
outside diameter $d_1$	14.1	14.1	14.3	14.0
wall thickness $s_1$	2.1	2.0	2.3	2.0
outside diameter basic pipe $d_{1i}$	13.8	13.8	14.1	13.8
wall thickness basic pipe $s_{1i}$	2.0	1.9	2.2	1.9
oxygen barrier thickness	0.15	0.06	---	---

<sup>1</sup> dimensions according to company standards

3.5 Heat ageing

designation	unit in	average value	set value
longitudinal reversion	%	0.5	≤ 3.0

3.6 Condition after heat ageing: without objection

3.7 Long-term internal pressure test

test temperature in °C	test stress in MPa	time to failure in h	
		actual value	set value
95	4.4	> 1000	≥ 1000

3.8 Material properties

designation	unit in	average value	set value
degree of crosslinking	%	65	≥ 65
homogeneity - microtome section procedure B	grade	1.0	≤ 3

4. Assessment of production plant

Assessment of laboratory staff and device equipment as well as internal production control.

Result: without objection

5. Complaints

According to the production site, during the inspection period there were no complaints about the products monitored.

