



TEST REPORT 2322474-OYC

Date 16 JUN 2023

Singapore Test Lab Pte Ltd, 10B Enterprise Road, Singapore 629828, Tel: +65 6353 6393, Fax: +65 6353 6395

SUBJECT:

Testing of uPVC pipe

TESTED FOR:

Snow Pte Ltd
15A Tuas Ave 18, #03-01,
Singapore 638905

Attn: Steven Eu

SAMPLE RECEIVED DATE:

14 Apr 2023 (Size 15mm, 20mm & 32mm pipe)
09 Jun 2023 (25mm pipe)

TEST DATE:

14 Apr 2023
09 Jun 2023

METHOD OF TEST:

SS 141: 2013 - Specification for unplasticised PVC pipe for cold water services and industrial uses

TEST CONDECTED:

1. Measurement of dimensional
2. Softening point
3. Heat reversion
4. Hydrostatic pressure
5. Impact strength
6. Opacity



The results reported herein have been performed in accordance with the laboratory's terms of accreditation under the Singapore Accreditation Council – Singapore Laboratory Accreditation Scheme.

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SAMPLE DESCRIPTION:

One lot of uPVC pipes were received. The descriptions are as follow:

Size	Markings
15mm Ø	SNOW 15MM UPVC PIPE SS141 BS 3505 CLASS E PPE1558 2 LEAD FREE
20mm Ø	SNOW 20MM UPVC PIPE SS141 BS 3505 CLASS E PPE2058 1 LEAD FREE
25mm Ø	SNOW 25MM UPVC PIPE SS141 BS 3505 CLASS E PPE2558 1 LEAD FREE
32mm Ø	SNOW 32MM UPVC PIPE SS141 BS 3505 CLASS E PPE3258 2 LEAD FREE

TEST RESULTS:

Table 1a - Dimensional measurements

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)	
	15mm Ø	20mm Ø	15mm Ø	20mm Ø
Mean outside diameter (mm)	21.3	26.9	21.2 min. 21.5 max.	26.6 min. 26.9 max.
Thickness individual value (mm) Min.	1.9	2.4	1.7	1.9
Thickness individual value (mm) Max.	2.1	2.5	2.1	2.5
Thickness average value (mm) Max	2.0	2.5	2.1	2.5

Table 1b - Dimensional measurements

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)	
	25mm Ø	32mm Ø	25mm Ø	32mm Ø
Mean outside diameter (mm)	33.5	42.3	33.4 min. 33.7 max.	42.1 min. 42.4 max.
Thickness individual value (mm) Min.	2.4	3.0	2.2	2.7
Thickness individual value (mm) Max.	2.6	3.1	2.7	3.2
Thickness average value (mm) Max	2.5	3.1	2.7	3.2

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TEST RESULTS (CONT'D):

Table 2a - Softening point test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements
	15mm Ø	20mm Ø	
Softening temperature °C	81.8	81.9	≥ 80

Table 2b - Softening point test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements
	25mm Ø	32mm Ø	
Softening temperature °C	81.8	82.1	≥ 80

Table 3a – Heat reversion test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)
	15mm Ø	20mm Ø	
Heat reversion, (%) (Hot air oven)	3.0	1.3	5 max.

Table 3b- Heat reversion test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)
	25mm Ø	32mm Ø	
Heat reversion, (%) (Hot air oven)	1.4	1.6	5 max.

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TEST RESULTS (CONT'D):

Table 4a – Hydrostatic pressure test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)
	15mm Ø	20mm Ø	
Hydrostatic short term strength test	Passed		No failure during the test.

Table 4b – Hydrostatic pressure test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)
	25mm Ø	32mm Ø	
Hydrostatic short term strength test	Passed		No failure during the test.

Table 5a – Impact test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)
	15mm Ø	20mm Ø	
Impact test	Passed		Clause D.5

Table 5b – Impact test

Sample Reference & Sizes	Results		SS 141: 2013 Requirements PN 15 (Class E)
	25mm Ø	32mm Ø	
Impact test	Passed		Clause D.5

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TEST RESULTS (CONT'D):

Table 6a – Opacity Test

Sample Reference & Sizes	Result		SS 141: 2013 Requirements PN 15 (Class E)
	15mm Ø	20mm Ø	
Opacity, (%)	0		Shall not transmit more than 0.2% of visible light falling on it

Table 6b – Opacity Test

Sample Reference & Sizes	Result		SS 141: 2013 Requirements PN 15 (Class E)
	25mm Ø	32mm Ø	
Opacity, (%)	0		Shall not transmit more than 0.2% of visible light falling on it



 Ong Yeo Chuan
 Testing Officer



 Chua Peck Cheong
 Senior Manager

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