

TEST CERTIFICATE

Inspection report n°/date: 3/ 94 2251.1 Mo/m / 10.10.1994

Applicant: INDEX S.p.A.
Via G. Rossini, 22
I-37060 Castel d'Azzano/Verona

Date of assignment: 12.09.1994

Subject of inspection - kind: Polymer-bitumen
waterproofing membrane
- type: PYP-PV 200 S 5 - DIN 52 133
- Denomination: "INDEX APP PV 200 S 5"
- Production batch: none

Acceptance for inspection: - date: 19.09.1994
- quantity: ca. 10 lfm
- origin: INDEX

Request of inspection: Inspection according to DIN 52 123
standard (inspection of bitumen and
polymer-bitumen membranes) in
compliance with requirements of DIN 52
133 (polymer-bitumen
waterproofing membranes)
First inspection for contractual quality
control

Results of inspection: see enclosure - page 1

ASSESSMENT

According to the result of inspection, the present test on roof membranes called "INDEX APP PV 200 S 5" complies with the requirements referring to a polymer-bitumen waterproofing membrane with inner layer in polyester of standard type PYP with respect to DIN 52 133.

Office for chemical and
technical inspection - Karlsruhe

FMPA BW
Division 3

Organic chemistry
Dipl.-Chem. Dr.Morper

Dipl.-Chem, Deglmann
Oberchemierat

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TEST CERTIFICATE

Inspection report n°/date: 3/ 95 3110.2 Mo/m / 08.05.1995

Applicant: INDEX S.p.A.
Via G. Rossini, 22
I-37060 Castel d'Azzano/Verona

Date of assignment: 07.03.1995

Subject of inspection - kind: Polymer-bitumen
waterproofing membrane
- type: Plastomer (PYP)
- Denomination: "INDEX APP PV 200 S 4"
- Production batch: 796463 L

Acceptance for inspection: - date: 12.04.1995
- quantity: 1 original roll
- origin: INDEX

Request of inspection: Inspection according to DIN 52 123
standard (inspection of bitumen and
polymer-bitumen membranes) in
compliance with requirements of DIN
52 133 (polymer-bitumen waterproofing
membranes)
First inspection for contractual quality
control

Results of inspection: see enclosure - page 1

ASSESSMENT

According to the result of inspection and in relation to the present test on roof membrane, called "INDEX APP PV 200 S 4", we are dealing with a polymer-bitumen waterproofing membrane of the standard-type PYP with inner layer in polyester. Differing from standard, the test shows a peculiar thickness of 4 mm. according to manufacturer's requirement. As for the general features, the test on roof membranes complies with DIN 52133 requirements.

Office for chemical and
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4

INSPECTION OF BITUMEN AND POLYMER-BITUMEN MEMBRANES (DIN 52 123)

Inspection Result for "INDEX APP PV 200 S 4"		Requirements for PYP PV 200 S 5 DIN 52 133 with talc / slated	
1. EXTERNAL STATE			
	(+)		Inner layer permeated with impregnating and covering substance
	(+)		Inner layer / covering layers internally connected
	(+)		Reinforced inner layer in between the 3 layer membrane
Upper side	Talc	(T)alc : (S)late	
Bottom side	Foil	(T)alc i.e. (F)oil	
	(+)		regular, good adherence without cracks or pleats
2. SIZE			
Membrane thickness, average value (mm)	4.2 *)		≥ 5.0 : ≥ 5.2
minimum value (mm)	4.1 *)		> 4.7 : ≥ 4.9
Membrane width (cm)	100.8		----
3. COMPONENTS			
Membrane weight (g/m ²)	4200		----
Type of inner layer	(+)		Polyester layer
Inner layer surface weight (g/m ²)	> 250 (B)		≥ 200 (T) / ≥ 250 (B)
4. TECHNICAL CHARACTERISTICS			
Water impermeability	2 bar/24h		≥ 2 bar / 24 h
Flexibility at low temperature (°C)	-18		≤ -15
Shape stability (°C)	+140		≥ +130
Tensile strength, average value			
length (N)	1180		≥ 800
cross (N)	866		≥ 800
diagonal (N)	993		≥ 800
Ultimate elongation., average value			
length (%)	41		≥ 40
cross (%)	44		≥ 40
diagonal (%)	42		≥ 40

Symbols for assessment: (+) = complying
(-) = not complying

*) Special thickness: 4 mm
(deviating from standard, however manufacturer's special requirement)

5

RESEARCH AND MATERIAL
INSPECTION DEPARTMENT
BADEN-WÜRTTEMBERG

FMPA

- Office for Chemical and Technical Inspection - Karlsruhe -

TEST CERTIFICATE

Inspection report n°/date:		3/ 94 2251.2 Mo/m / 10.10.1994
Applicant:		INDEX S.p.A. Via G. Rossini, 22 I-37060 Castel d'Azzano/Verona
Date of assignment:		12.09.1994
Subject of inspection	- kind:	Polymer-bitumen waterproofing membrane
	- type:	PYP-PV 200 S 5 - DIN 52 133
	- Denomination:	"INDEX APP PV 200 S 5 Slate"
	- Production batch:	none
Acceptance for inspection:	- date:	19.09.1994
	- quantity:	ca. 10 lfm
	- origin:	INDEX
Request of inspection:		Inspection according to DIN 52 123 standard (inspection of bitumen and polymer-bitumen membranes) in compliance with requirements of DIN 52 133 (polymer-bitumen waterproofing membranes) First inspection for contractual quality control
Results of inspection:		see enclosure - page 1

ASSESSMENT

According to the result of inspection, the present test on roof membranes called "INDEX APP PV 200 S 5 Slate" complies with the requirements referring to a polymer-bitumen waterproofing membrane with inner layer in polyester of standard type PYP with respect to DIN 52 133.

Office for chemical and
technical inspection - Karlsruhe

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Division 3

Organic chemistry
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TEST CERTIFICATE

Inspection report n°/date:		3/ 95 3110.3 Mo/m / 08.05.1995
Applicant:		INDEX S.p.A. Via G. Rossini, 22 I-37060 Castel d'Azzano/Verona
Date of assignment:		07.03.1995
Subject of inspection	- kind:	Polymer-bitumen waterproofing membrane
	- type:	Plastomer (PYP)
	- Denomination:	"INDEX APP PV 200 S 4 Slate"
	- Production batch:	790192 L
Acceptance for inspection:	- date:	12.04.1995
	- quantity:	1 original roll
	- origin:	INDEX
Request of inspection:		Inspection according to DIN 52 123 standard (inspection of bitumen and polymer-bitumen membranes) in compliance with requirements of DIN 52 133 (polymer-bitumen waterproofing membranes) First inspection for contractual quality control
Results of inspection:		see enclosure - page 1

ASSESSMENT

According to the result of inspection and in relation to the present test on roof membrane, called "INDEX APP PV 200 S 4", we are dealing with a polymer-bitumen waterproofing membrane of the standard-type PYP with inner layer in polyester. Differing from standard, the test shows a peculiar thickness of 4 mm. according to manufacturer's requirement. As for the general features, the test on roof membranes complies with requirements of DIN 52133.

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INSPECTION OF BITUMEN AND POLYMER-BITUMEN MEMBRANES (DIN 52 123)

Inspection Result for "INDEX APP PV 200 S 4 Slate"		Requirements for PYP PV 200 S 5 DIN 52 133 with talc / slated	
1. EXTERNAL STATE			
	(+)		Inner layer permeated with impregnating and covering substance
	(+)		Inner layer / covering layers internally connected
	(+)		Reinforced inner layer in between the 3 layer membrane
Upper side	Slate		(T)alc : (S)late
Bottom side	(+)		regular, good adherence
	Foil		(T)alc i.e. (F)oil
	(+)		without cracks or pleats
2. SIZE			
Membrane thickness, average value (mm)	4.7 *		≥ 5.0 : ≥ 5.2
minimum value (mm)	4.5 *		≥ 4.7 : ≥ 4.9
Membrane width (cm)	100.8		---
3. COMPONENTS			
Membrane weight (g/m ²)	4790		---
Type of inner layer	(+)		Polyester layer
Inner layer surface weight (g/m ²)	≥ 250 (B)		≥ 200 (T) / ≥ 250 (B)
4. TECHNICAL CHARACTERISTICS			
Water impermeability	2 bar/24h		> 2 bar / 24 h
Flexibility at low temperature (°C)	-18		≤ -15
Shape stability (°C)	+140		≥ +130
Tensile strength, average value			
length (N)	1124		≥ 800
cross (N)	1003		≥ 800
diagonal (N)	1010		≥ 800
Ultimate elongation, average value			
length (%)	46		≥ 40
cross (%)	44		≥ 40
diagonal (%)	44		≥ 40

Symbols for assessment:

(+) = complying

(-) = not complying

*) Special thickness: 4 mm

(deviating from standard, however manufacturer's special requirement)