



SLOVENSKI STANDARD
kSIST prEN 13304:2008

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Bitumen in bitumenska veziva - Okvirna specifikacija za oksidirane bitumne

Bitumen and bituminous binders - Framework for specification of oxidised bitumens

Bitumen und bitumenhaltige Bindemittel - Spezifikationsrahmen für oxidiertes Bitumen

Bitumes et liants bitumineux - Cadre de spécifications des bitumes oxydés

Ta slovenski standard je istoveten z: prEN 13304

ICS:

75.140	Voski, bitumni in drugi naftni proizvodi	Waxes, bituminous materials and other petroleum products
91.100.50	Veziva. Tesnilni materiali	Binders. Sealing materials

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Bitumen und bitumenhaltige Bindemittel - Spezifikationsrahmen für oxidiertes Bitumen

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Foreword

This document (prEN 13304:2008) has been prepared by Technical Committee CEN/TC 336 "Bituminous binders", the secretariat of which is held by AFNOR.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 13304:2003.

1 Scope

This European Standard provides a framework for the specification of oxidised bitumens used mainly in roofing, waterproofing and adhesives.

Within Europe several types of oxidised bitumens are used and, dependent on climatic conditions, type of building construction and traditional practices, different grades may be used for the same purpose. The framework given in this European standard provides a basis for quality agreements to be established between supplier and client.

The oxidised bitumen products are graded by a combination of the values of ring and ball, softening point and penetration at 25 °C, expressed as multiples of 5.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 1426, *Bitumen and bituminous binders – Determination of needle penetration*

EN 1427, *Bitumen and bituminous binders – Determination of the softening point – Ring and Ball method*

EN 12592, *Bitumen and bituminous binders – Determination of solubility*

EN 12593, *Bitumen and bituminous binders – Determination of the Fraass breaking point*

EN 13301, *Bitumen and bituminous binders – Determination of staining tendency of bitumen*

EN 13302, *Bitumen and bituminous binders – Determination of viscosity of bitumen using a rotating spindle apparatus*

EN 13303, *Bitumen and bituminous binders – Determination of the loss in mass after heating of industrial bitumen*

EN ISO 2592, *Determination of flash and fire points - Cleveland open cup method (ISO 2592:2000)*

3 Properties and test methods

The specification of oxidised bitumens shall be made according to the rules given in Table 1:

Table 1 — Properties and test methods

Property	Limits and tolerance	Test methods
Ring and Ball softening point ^a	± 5 °C of value	EN 1427
Penetration at 25 °C	± 5 x 0,1 mm of value	EN 1426
Solubility in toluene ^b	≥ 99,0 %	EN 12592
Loss on heating	≤ 0,5 %	EN 13303
Flash point	> 250 °C	EN ISO 2592
Fraass breaking point	c	EN 12593
Staining properties	c	EN 13301
Dynamic viscosity ^d	c	EN 13302
<p>^a Ring and Ball softening point testing for oxidised bitumens are carried out in glycerol, as the values typically are above 80 °C.</p> <p>^b If other solvents are used, it shall be stated in the test report.</p> <p>^c Values can be agreed between the client and the supplier</p> <p>^d The type of instrument used to determine viscosity should be agreed between supplier and client.</p>		

NOTE Density should be determined, when necessary, in accordance with EN 15326. Values can be agreed between the client and the supplier.

4 Typical grades

Typical grades for oxidised bitumens are:

85/25; 85/40; 95/25; 95/35; 100/40; 105/35; 110/30; 115/15.

EXAMPLE 85/25 means that the Ring and Ball softening point of the product is between 80 °C and 90 °C and penetration between 20 x 0,1 mm and 30 x 0,1 mm.

NOTE This list does not imply that the grades are available in all countries, neither is it intended to be comprehensive or limiting. Other grades may be supplied in accordance with the local customs or circumstances, and by agreement between client and supplier.

Bibliography

- [1] EN 15326, *Bitumen and bituminous binders – Measurement of density and specific gravity – Capillary-stoppered pycnometer method*