

TEST PROTOCOL

Number: 100-025006

dated: 2009-02-13

Name and address of the customer: Technický a zkušební ústav stavební Praha, s.p.
pobočka Praha
Prosecká 811/76a
190 00 Praha 9

Product name: Epoxy flooring system - EPOREZIT EB-47/EPOREZIT T-47
- EPOREZIT EB-53/EPOREZIT T-53

Test subject: determination of phenolic substances, Compounds with NH₂ group, primary aromatic amines, determination of formaldehyde - extractible one, aromatic compounds expressed as styrene, determination of softeners content - phthalates, metals in water and aqueous extracts and evaluation of organoleptic properties


Test method: determination of phenolic substances: method No. 100604
determination of Compounds with NH₂ group: method No. 100629
determination of primary aromatic amines: method No. 100630
determination of formaldehyde - extractible one: method No. 100607
determination of aromatic compounds expressed as styrene: method No. 100627
determination of softeners content - phthalates: method No. 100602
determination of metals in water and aqueous extracts: method No. 100612
evaluation of organoleptic properties: method No. 100632

Test legal basis: Law No. 258/2000 Digest about public health protection, the Direction of the Ministry of Health No. 38/2001 Digest about hygienic requirements on products intended for contact with foodstuffs and meals, as amended.

Date of sample receipt for testing: 2009-01-20
Tests were carried out: from: 2009-01-20 to: 2009-02-13

Test was carried out by the laboratory: Analytic Chemistry Laboratory
Name, function of the person entitled to sign this Test Protocol:




Libuše Pražáková, M.Sc.
Technical Head of Laboratory



Description and identification of the sample:

Epoxy flooring system - EPOREZIT EB-47/EPOREZIT T-47
- EPOREZIT EB-53/EPOREZIT T-53

Devices used: AAS PU 9400, mercury-meter AMA 254, spectrometer UV-VIS PU 8800, gas chromatograph GC-MS FOCUS with 120500-T230S

Test results:

a) Determination of chemical substances content in an extract:

In an aqueous extract, primary aromatic amines, extractible formaldehyde and free phenol were spectrophotometrically stated using following agents:

- aromatic amines expressed as anilinhydrochloride: by N-(1-naftyl) ethylendiamindihydrochloride
- extractible formaldehyde: by acetyl acetone
- free phenol: by 4-aminoantipyrine

Compounds with NH_2 group and aromatic substances expressed as styrene were also stated spectrophotometrically.

Occurrence of phthalic acid esters were was measured by chromatographic analysis GC/MS.

Following values of given elements migration were found by measuring with AAS method on PU 9400 in an aqueous extract.

Vzorek č. 45 - Epoxy flooring system			
Parameters measured	Units	Results	Extended uncertainty in % rel.
Phenolic compounds	mg/dm ²	0,007	8
Compounds with -NH ₂ group	mg/dm ²	< 0,02	-
Primary aromatic amines	mg/dm ²	< 0,002	-
Formaldehyde	mg/dm ²	< 0,002	-
Aromatic substances expressed as styrene	mg/dm ²	< 0,005	-
Phthalic acid esters	mg/dm ²	< 0,02	-
Cd	mg/l	< 0,004	-
Pb	mg/l	< 0,033	-
Cr	mg/l	< 0,07	-
Sb	mg/l	< 0,13	-
Hg	mg/l	< 0,002	-
As	mg/l	< 0,2	-
Se	mg/l	< 0,1	-

b) Evaluation of organoleptic properties of the sample - organoleptic evaluation:

An extract of boiled drinking water was evaluated after 48 hours long extraction by a room temperature.

Vzorek č. 45 - Epoxy flooring system		
Parameters measured	Units	Results
Organoleptic parameters of the sampl	Ball	1 slight odour or taste or small differences between tested and control samples

The uncertainty mentioned is the extended uncertainty calculated by using the extension coefficient equalling 2 and so it corresponds to the importance level by approx. 95%.

Tests carried out by: P. Šlejhar, M.Sc., J. Malkovská, S. Egermaierová, M. Pfeiferová
Protocol competed by: M. Pfeiferová

Note:

This Test Protocol can be copied as the whole only, in case of using its part, a written approval is necessary of the testing laboratory.

Test results are valid for the sample tested only and this Test Protocol does not replace any other documents.