



Imperial Paints LLC
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Date
 14 March 2016

Our ref.
 392-2016-00086003

Test Report – ISO 11890-2 / ASTM D6886

Sample material

Sample identification	ECOS Semi-Gloss Light		
Product type	Paint		
Batch No.	FF32215SGWB		
Production date	18/11/2015		
Product data	Density: 1,31 g/ml	(Information from client)	
Date received	14/12/2015		
Analytical period	02/03/2016 – 14/03/2016		

Methods applied

Method	Principle	Parameter	Reporting limit	Uncertainty (U _m)
EU Directive 42/2004/EC ISO 11890-2 (2013) ASTM D6886-12	GC/MS and GC/FID	Content of volatile organic compounds (VOC) in paints and varnishes	1 g/l	20 %

Volatile Organic Compounds (VOC) include all organic compounds with an initial boiling point less than or equal to 250°C measured at standard pressure of 101,3 kPa.

The determination is performed in conformity with ISO 11890-2 and the Commission Decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes, with its most recent amendments and its most recent User Manual.

Analyses are performed with a slightly polar gas chromatographic column (HP-5). Mass spectrometric detector is used for identification and flame ionization detector is used for quantification. Identified VOCs are quantified with their authentic response factors, or with their relative response factors using 1,2-diethoxyethane as internal standard. Remaining unknown VOC peaks are quantified in diethyl adipate equivalents.

*)Not accredited

The expanded uncertainty U_m equals 2 x RSD%

The test results relate only to the items tested.

The report shall not be reproduced except in full without the written approval of the testing laboratory.

Analytical results

392-2016-00086003	CAS	Content (g/l)
Total VOC	-	< 1

Eurofins Product Testing A/S

Nikolaj Røjkjær Andersen
Analytical Chemist

*)Not accredited

The expanded uncertainty U_m equals 2 x RSD%

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Date
14 March 2016

Our ref.
392-2016-00086004

Test Report – ISO 11890-2 / ASTM D6886

Sample material

Sample identification	ECOS Semi-Gloss Varnish
Product type	Varnish
Batch No.	FF34415SGVAR
Production date	10/12/2015
Product data	Density: 1.03 g/ml (Information from client)
Date received	14/12/2015
Analytical period	02/03/2016 – 14/03/2016

Methods applied

Method	Principle	Parameter	Reporting limit	Uncertainty (U _m)
EU Directive 42/2004/EC ISO 11890-2 (2013) ASTM D6886-12	GC/MS and GC/FID	Content of volatile organic compounds (VOC) in paints and varnishes	1 g/l	20 %

Volatile Organic Compounds (VOC) include all organic compounds with an initial boiling point less than or equal to 250°C measured at standard pressure of 101,3 kPa.

The determination is performed in conformity with ISO 11890-2 and the Commission Decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes, with its most recent amendments and its most recent User Manual.

Analyses are performed with a slightly polar gas chromatographic column (HP-5). Mass spectrometric detector is used for identification and flame ionization detector is used for quantification. Identified VOCs are quantified with their authentic response factors, or with their relative response factors using 1,2-diethoxyethane as internal standard. Remaining unknown VOC peaks are quantified in diethyl adipate equivalents.

*)Not accredited

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Analytical results

392-2016-00086004	CAS	Content (g/l)
Total VOC	-	< 1

Eurofins Product Testing A/S

Nikolaj Røjkjær Andersen
Analytical Chemist

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The expanded uncertainty U_m equals 2 x RSD%

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Date
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Our ref.
392-2016-00086005

Test Report – ISO 11890-2 / ASTM D6886

Sample material

Sample identification	ECOS APP Eggshell Light		
Product type	Paint		
Batch No.	FF33415EGWBAPP		
Production date	10/12/2015		
Product data	Density: 1.37 g/ml	(Information from client)	
Date received	14/12/2015		
Analytical period	02/03/2016 – 14/03/2016		

Methods applied

Method	Principle	Parameter	Reporting limit	Uncertainty (U _m)
EU Directive 42/2004/EC ISO 11890-2 (2013) ASTM D6886-12	GC/MS and GC/FID	Content of volatile organic compounds (VOC) in paints and varnishes	1 g/l	20 %

Volatile Organic Compounds (VOC) include all organic compounds with an initial boiling point less than or equal to 250°C measured at standard pressure of 101,3 kPa.

The determination is performed in conformity with ISO 11890-2 and the Commission Decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes, with its most recent amendments and its most recent User Manual.

Analyses are performed with a slightly polar gas chromatographic column (HP-5). Mass spectrometric detector is used for identification and flame ionization detector is used for quantification. Identified VOCs are quantified with their authentic response factors, or with their relative response factors using 1,2-diethoxyethane as internal standard. Remaining unknown VOC peaks are quantified in diethyl adipate equivalents.

*)Not accredited

The expanded uncertainty U_m equals 2 x RSD%

The test results relate only to the items tested.

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Analytical results

392-2016-00086005	CAS	Content (g/l)
Total VOC	-	< 1

Eurofins Product Testing A/S

Nikolaj Røjkjær Andersen
Analytical Chemist

*)Not accredited

The expanded uncertainty U_{95} equals 2 x RSD%

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Date
 14 March 2016
 Our ref.
 392-2016-00086002

Test Report – ISO 11890-2 / ASTM D6886

Sample material

Sample identification	ECOS Matte Light		
Product type	Paint		
Batch No.	FF32715MWB		
Production date	22/11/2015		
Product data	Density: 1.37 g/ml	(Information from client)	
Date received	14/12/2015		
Analytical period	02/03/2016 – 14/03/2016		

Methods applied

Method	Principle	Parameter	Reporting limit	Uncertainty (U _m)
EU Directive 42/2004/EC ISO 11890-2 (2013) ASTM D6886-12	GC/MS and GC/FID	Content of volatile organic compounds (VOC) in paints and varnishes	1 g/l	20 %

Volatile Organic Compounds (VOC) include all organic compounds with an initial boiling point less than or equal to 250°C measured at standard pressure of 101,3 kPa.

The determination is performed in conformity with ISO 11890-2 and the Commission Decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes, with its most recent amendments and its most recent User Manual.

Analyses are performed with a slightly polar gas chromatographic column (HP-5). Mass spectrometric detector is used for identification and flame ionization detector is used for quantification. Identified VOCs are quantified with their authentic response factors, or with their relative response factors using 1,2-diethoxyethane as internal standard. Remaining unknown VOC peaks are quantified in diethyl adipate equivalents.

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The expanded uncertainty U_m equals 2 x RSD%

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Analytical results

392-2016-00086002	CAS	Content (g/l)
Total VOC	-	< 1

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Analytical Chemist

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The expanded uncertainty U_m equals 2 x RSD%

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Date
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Our ref.
 392-2016-00086001

Test Report – ISO 11890-2 / ASTM D6886

Sample material

Sample identification	ECOS Eggshell Light		
Product type	Paint		
Batch No.	FF33415EGWB		
Production date	01/12/2015		
Product data	Density: 1.37 g/ml	(Information from client)	
Date received	14/12/2015		
Analytical period	02/03/2016 – 14/03/2016		

Methods applied

Method	Principle	Parameter	Reporting limit	Uncertainty (U _m)
EU Directive 42/2004/EC ISO 11890-2 (2013) ASTM D6886-12	GC/MS and GC/FID	Content of volatile organic compounds (VOC) in paints and varnishes	1 g/l	20 %
<p>Volatile Organic Compounds (VOC) include all organic compounds with an initial boiling point less than or equal to 250°C measured at standard pressure of 101,3 kPa.</p> <p>The determination is performed in conformity with ISO 11890-2 and the Commission Decision 2014/312/EU of 28 May 2014 establishing the ecological criteria for the award of the EU Ecolabel for indoor and outdoor paints and varnishes, with its most recent amendments and its most recent User Manual.</p> <p>Analyses are performed with a slightly polar gas chromatographic column (HP-5). Mass spectrometric detector is used for identification and flame ionization detector is used for quantification. Identified VOCs are quantified with their authentic response factors, or with their relative response factors using 1,2-diethoxyethane as internal standard. Remaining unknown VOC peaks are quantified in diethyl adipate equivalents.</p>				

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Analytical results

392-2016-00086001	CAS	Content (g/l)
Total VOC	-	< 1

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The expanded uncertainty U_m equals $2 \times \text{RSD}\%$

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