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Interuniversity Institute for Silicates, soils and Materials
Test and Research laboratory
Non-profit-making association

Accreditation N° : 32-Test
according to ISO 17025

Including 3 pages + 1 annex

TEST REPORT : N° 2012B COU 15824-2a

Mons, June 11th, 2012

REQUESTED BY : **AGC Glass Europe - R&D Centre**
2 rue de l'Aurore
B-6040 Jumet
Belgium

REFERENCE OF THE REQUEST : Order 450327288 post 4

CONCERNED MANUFACTURER: **AGC GLASS EUROPE**
Chaussée de la Hulpe, 166
1170 BRUXELLES
BELGIUM

NUMBER OF SAMPLES AND IDENTIFICATION : Ultravision 60
See page 2

PURPOSE OF THE REQUESTED : **Initial Type Test**
Determination of the photo-energetic properties according to EN 1096-1.*

SAMPLES RECEIVED ON : 24/05/2012

TESTING DATE : 31/05/2012

REMARKS : * Test under accreditation

CE **Notified body (Id.N°1174)**
according to ART.18 of the « Construction Products Directive » CPD 89/106/EEC

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DESCRIPTION OF THE SAMPLES

Concerned manufacturer	:	**AGC GLASS EUROPE** Chaussée de la Hulpe, 166 1170 BRUXELLES BELGIUM
Production site	:	**Lodelinsart**
Commercial name of the product	:	**Ultravision 60**
Customer's references	:	**Code 78054 (M843 T49)**
Internal reference	:	CCOU 15824
Sampling	:	Under responsibility of the applicant
Sampling information	:	Traceability of the samples is under responsibility of the manufacturer.
Class of Coating	:	C
Coating position	:	2
Low emissivity	:	yes
Glass Substrate	:	Clear Float Glass
Normal emissivity of clear glass (ε_n)	:	0.89
Samples	:	
Number of samples	:	1 (100 * 100 mm)
Nominal Thickness	:	6 mm

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PHOTO-ENERGETIC PROPERTIES - EN 1096-1

Instruments Description	For emissivity	For optical properties
Spectrophotometer	PerkinElmer SPECTRUM 100	PerkinElmer PE750
Type	Single Beam (FTIR)	Double Beam
Reflectance accessory	PerkinElmer	
Type of references	SnO_2 Coated Glass	Primary surface Ag Mirrors
	Gold Mirror	Secondary surface Ag Mirrors
Measurement Responsible	DL	DL

Notes : Uncertainty calculated on emissivity measurement is ± 0.01
Reproducibility on emissivity measurement is estimated to ± 0.005

15824-2 : 5.90 mm

		COATED GLASS (EN 1096-1)	
U.V. range (280 – 380 nm)			
• Transmission	τ_{uv}	8.0	%
Visible range (380 – 780 nm) – Ill D65/obs 2°			
• Transmission	τ_v	66.3	%
• Reflection coated side	ρ_v	8.2	%
• Reflection opposite side	ρ'_v	9.0	%
Solar range (300 – 2500 nm)			
• Transmission	τ_e	30.4	%
• Reflection coated side	ρ_e	47.0	%
• Reflection opposite side	ρ'_e	33.2	%
• Solar factor	g	0.36	
Thermal range (5000 – 50000 nm)			
• Emissivity	ε_n	0.020	
• Thermal coefficient	Ug	/	

D. LIBERT
Head of Department
Glazing and Components - INISMa

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