



Unique identification code of the product Type:	PYRANOVA® secure Declaration of performance no. 1121 – CPR – CA0025
Intended use:	Laminated safety glass and insulating glass units to be used in buildings and construction works
Manufacturer:	SCHOTT Technical Glass Solutions GmbH Otto-Schott-Strasse 13 07745 Jena Germany
Harmonised standard:	EN 14449:2005 und EN 1279-5:2005+A2:2010
Notified bodies:	No.: 0086, 0402, 0432, 0589, 0672, 0757, 0761, 0786, 0832, 0833, 0843, 1121, 1139, 1166, 1234, 1288, 1314, 1322, 1343, 1396, 1644, 1812, 2502

Essential characteristics	AVCP systems	Declared performance/s	
		30 Type P4A / 5.4.2	30 Type P5A / 5.10.2
Safety in the case of fire			
Resistance to fire	1	EI30	EI30
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P4A	P5A
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		5,2 W/(m²K)	5,2 W/(m²K)
Radiation properties			
Light transmission	3	0,83	0,82
Light reflection		0,08 / 0,08	0,08 / 0,08
Solar energy characteristics			
Solar transmission	3	0,54	0,53
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,64	0,63
Durability	3	Pass	Pass

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Jena, 30.11.2018

Dr. Reiner Mauch

ppa. Christian Jabschinsky



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Essential characteristics	AVCP systems	Declared performance/s	
		30 Type P6B / 1.1.6	30 Type P6B / 4.10.13
Safety in the case of fire			
Resistance to fire	1	EI30	EI30
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P6B	P6B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,9 W/(m²K)	5,1 W/(m²K)
Radiation properties			
Light transmission	3	0,82	0,82
Light reflection		0,07 / 0,07	0,08 / 0,08
Solar energy characteristics			
Solar transmission	3	0,56	0,52
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,65	0,62
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		30 Type P7B / 1.2.6	30 Type P8B / 1.3.1
Safety in the case of fire			
Resistance to fire	1	EI30	EI30
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P7B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,8 W/(m²K)	4,4 W/(m²K)
Radiation properties			
Light transmission	3	0,80	0,80
Light reflection		0,07 / 0,07	0,07 / 0,07
Solar energy characteristics			
Solar transmission	3	0,55	0,54
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,64	0,64
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		30 Type P8B / 1.9.7	30 Type P8B / 1.8.2
Safety in the case of fire			
Resistance to fire	1	EI30/E60	EI45/EW60
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P8B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,3 W/(m²K)	4,0 W/(m²K)
Radiation properties			
Light transmission	3	0,75	0,71
Light reflection		0,07 / 0,07	0,07 / 0,07
Solar energy characteristics			
Solar transmission	3	0,48	0,46
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,59	0,58
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		60 Type P5A / 5.10.3	60 Type P6B / 12.0.2
Safety in the case of fire			
Resistance to fire	1	EI60	EI60
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P5A	P6B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		5,0 W/(m²K)	4,9 W/(m²K)
Radiation properties			
Light transmission	3	0,79	0,79
Light reflection		0,07 / 0,07	0,07 / 0,07
Solar energy characteristics			
Solar transmission	3	0,48	0,46
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,59	0,58
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		60 Type P8B / 2.3.18	60 Type P8B / 2.4.18
Safety in the case of fire			
Resistance to fire	1	EI60	EI60
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P8B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,3 W/(m²K)	4,8 W/(m²K)
Radiation properties			
Light transmission	3	0,74	0,79
Light reflection		0,07 / 0,07	0,07 / 0,07
Solar energy characteristics			
Solar transmission	3	0,45	0,45
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,56	0,57
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		60 Type P8B / 10.8.19	60 Type P8B / 13.18.16
Safety in the case of fire			
Resistance to fire	1	EI60	EI60
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P8B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		3,7 W/(m²K)	3,4 W/(m²K)
Radiation properties			
Light transmission	3	0,67	0,61
Light reflection		0,06 / 0,06	0,06 / 0,06
Solar energy characteristics			
Solar transmission	3	0,39	0,34
Solar reflection		0,05	0,05
Solar factor (g-Value)		0,52	0,48
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		90 Type P7B / 15.19.20	90 Type P8B / 15.17.20
Safety in the case of fire			
Resistance to fire	1	EI90	EI90
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P7B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,0 W/(m²K)	3,9 W/(m²K)
Radiation properties			
Light transmission	3	0,67	0,65
Light reflection		0,06 / 0,06	0,06 / 0,06
Solar energy characteristics			
Solar transmission	3	0,35	0,34
Solar reflection		0,05	0,05
Solar factor (g-Value)		0,49	0,48
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		90 Type P8B / 15.18.20	
Safety in the case of fire			
Resistance to fire	1	EI90	
Reaction to fire	3, 4	E	
External fire behaviour	3, 4	NPD	
Safety in use			
Bullet resistance	1	NPD	
Explosion resistance	1	NPD	
Burglar resistance	3	P8B	
Pendulum body impact resistance	3	NPD	
Resistance against sudden temperature changes and temperature differentials	4	40 K	
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	
Protection against noise			
Direct airborne sound reduction	3	NPD	
Thermal properties			
Emissivity	3	NPD	
U-value		3,3 W/(m²K)	
Radiation properties			
Light transmission	3	0,59	
Light reflection		0,06 / 0,06	
Solar energy characteristics			
Solar transmission	3	0,31	
Solar reflection		0,05	
Solar factor (g-Value)		0,46	
Durability	3	Pass	

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Essential characteristics	AVCP systems	Declared performance/s	
		30 Type BR2NS / 2.1.1	30 Type BR2NS / 10.0.12
Safety in the case of fire			
Resistance to fire	1	EI30	EI30
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	BR2NS	BR2NS
Explosion resistance	1	NPD	NPD
Burglar resistance	3	NPD	NPD
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		5,1 W/(m²K)	5,0 W/(m²K)
Radiation properties			
Light transmission	3	0,84	0,86
Light reflection		0,08 / 0,08	0,08 / 0,08
Solar energy characteristics			
Solar transmission	3	0,59	0,59
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,67	0,67
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		30 Type BR4NS / 1.1.9	30 Type BR4NS / 10.0.10
Safety in the case of fire			
Resistance to fire	1	EI30	EI45/EW60
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	BR4NS	BR4NS
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P8B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,9 W/(m²K)	4,4 W/(m²K)
Radiation properties			
Light transmission	3	0,83	0,83
Light reflection		0,08 / 0,08	0,08 / 0,08
Solar energy characteristics			
Solar transmission	3	0,59	0,57
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,68	0,65
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		30 Type BR4NS / 9.0.11	30 Type BR4NS / 9.16.15
Safety in the case of fire			
Resistance to fire	1	EI45/EW60	EI45
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	BR4NS	BR4NS
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P8B	P8B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,5 W/(m²K)	3,2 W/(m²K)
Radiation properties			
Light transmission	3	0,85	0,69
Light reflection		0,08 / 0,08	0,07 / 0,07
Solar energy characteristics			
Solar transmission	3	0,61	0,48
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,69	0,59
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		60 Type BR4NS / 12.1.1	
Safety in the case of fire			
Resistance to fire	1	EI60	
Reaction to fire	3, 4	E	
External fire behaviour	3, 4	NPD	
Safety in use			
Bullet resistance	1	BR4NS	
Explosion resistance	1	NPD	
Burglar resistance	3	NPD	
Pendulum body impact resistance	3	NPD	
Resistance against sudden temperature changes and temperature differentials	4	40 K	
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	
Protection against noise			
Direct airborne sound reduction	3	NPD	
Thermal properties			
Emissivity	3	NPD	
U-value		4,7 W/(m²K)	
Radiation properties			
Light transmission	3	0,79	
Light reflection		0,07 / 0,07	
Solar energy characteristics			
Solar transmission	3	0,49	
Solar reflection		0,06	
Solar factor (g-Value)		0,60	
Durability	3	Pass	

The performance of the product identified above is in conformity with the set of declared performance/s. This declaration of performance is issued, in accordance with Regulation (EU) No 305/2011, under the sole responsibility of the manufacturer identified above.

Signed for and on behalf of the manufacturer by:

Jena, 30.11.2018

Dr. Reiner Mauch

ppa. Christian Jabschinsky



Unique identification code of the product Type:	PYRANOVA® secure Declaration of performance no. 1121 – CPR – CA0025
Intended use:	Laminated safety glass and insulating glass units to be used in buildings and construction works
Manufacturer:	SCHOTT Technical Glass Solutions GmbH Otto-Schott-Strasse 13 07745 Jena Germany
Harmonised standard:	EN 14449:2005 und EN 1279-5:2005+A2:2010
Notified bodies:	No.: 0086, 0402, 0432, 0589, 0672, 0757, 0761, 0786, 0832, 0833, 0843, 1121, 1139, 1166, 1234, 1288, 1314, 1322, 1343, 1396, 1644, 1812, 2502

Essential characteristics	AVCP systems	Declared performance/s	
		90 Type BR2NS / 11.1.0	90 Type BR4NS / 11.1.1
Safety in the case of fire			
Resistance to fire	1	EI90	EI90
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	BR2NS	BR4NS
Explosion resistance	1	NPD	NPD
Burglar resistance	3	NPD	NPD
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		4,5 W/(m²K)	4,5 W/(m²K)
Radiation properties			
Light transmission	3	0,80	0,80
Light reflection		0,07 / 0,07	0,07 / 0,07
Solar energy characteristics			
Solar transmission	3	0,58	0,58
Solar reflection		0,06	0,06
Solar factor (g-Value)		0,67	0,67
Durability	3	Pass	Pass

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Essential characteristics	AVCP systems	Declared performance/s	
		120 Type BR6NS / 18.1.0	
Safety in the case of fire			
Resistance to fire	1	EI120	
Reaction to fire	3, 4	E	
External fire behaviour	3, 4	NPD	
Safety in use			
Bullet resistance	1	BR6NS	
Explosion resistance	1	NPD	
Burglar resistance	3	NPD	
Pendulum body impact resistance	3	NPD	
Resistance against sudden temperature changes and temperature differentials	4	40 K	
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	
Protection against noise			
Direct airborne sound reduction	3	NPD	
Thermal properties			
Emissivity	3	NPD	
U-value		2,7 W/(m²K)	
Radiation properties			
Light transmission	3	0,73	
Light reflection		0,14 / 0,13	
Solar energy characteristics			
Solar transmission	3	0,51	
Solar reflection		0,11	
Solar factor (g-Value)		0,61	
Durability	3	Pass	

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Essential characteristics	AVCP systems	Declared performance/s	
		IGU 30 Type P4A / 5.4.2 ¹	IGU 30 Type P7B / 1.2.6 ²
Safety in the case of fire			
Resistance to fire	1	EI30	EI30
Reaction to fire	3, 4	E	E
External fire behaviour	3, 4	NPD	NPD
Safety in use			
Bullet resistance	1	NPD	NPD
Explosion resistance	1	NPD	NPD
Burglar resistance	3	P4A	P7B
Pendulum body impact resistance	3	NPD	NPD
Resistance against sudden temperature changes and temperature differentials	4	40 K	40 K
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	NPD
Protection against noise			
Direct airborne sound reduction	3	NPD	NPD
Thermal properties			
Emissivity	3	NPD	NPD
U-value		1,1 W/(m²K)	1,1 W/(m²K)
Radiation properties			
Light transmission	3	0,75	0,73
Light reflection		0,11 / 0,10	0,11 / 0,10
Solar energy characteristics			
Solar transmission	3	0,42	0,42
Solar reflection		0,26	0,26
Solar factor (g-Value)		0,59	0,59
Durability	3	Pass	Pass

¹ Design: outside - Float 4 mm lowE – Argon 15mm – PYRANOVA® secure 30 P4A /5.4.2 - inside

² Design: outside - Float 4 mm lowE – Argon 15mm – PYRANOVA® secure 30 P7B /1.2.6 - inside

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Essential characteristics	AVCP systems	Declared performance/s	
		IGU 30 Type BR4NS / 1.1.9 ³	
Safety in the case of fire			
Resistance to fire	1	EI30	
Reaction to fire	3, 4	E	
External fire behaviour	3, 4	NPD	
Safety in use			
Bullet resistance	1	BR4NS	
Explosion resistance	1	NPD	
Burglar resistance	3	P8B	
Pendulum body impact resistance	3	NPD	
Resistance against sudden temperature changes and temperature differentials	4	40 K	
Resistance against wind, snow, permanent load and/or imposed loads	4	NPD	
Protection against noise			
Direct airborne sound reduction	3	NPD	
Thermal properties			
Emissivity	3	NPD	
U-value		1,1 W/(m²K)	
Radiation properties			
Light transmission	3	0,76	
Light reflection		0,11 / 0,10	
Solar energy characteristics			
Solar transmission	3	0,45	
Solar reflection		0,26	
Solar factor (g-Value)		0,59	
Durability	3	Pass	

³ Design: outside - Float 4 mm lowE – Argon 15mm – PYRANOVA® secure 30 BR4NS / 1.1.9 - inside

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Remark to the Declaration of Performance

For laminated glass and insulating glass units, this declaration of performance indicates some exemplary glass structures/designs but it is not possible to list all available glass structures/designs.

The declaration of performance and the characteristics of performance of non-listed glass structures/designs is available on request or with your order.

SCHOTT Technical Glass Solutions GmbH
E-Mail: info.pyran@schott.com

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