



Product Service

Certificate

No. B 12 07 68802 005

Type of window	Type / Gas filling H – hardened glass T – low emission coating	Property	Standard	Classification
FPP-V preSelect (FPP-V U3, FPP-V L3) FPU-V U3 preSelect FPU-V L3 preSelect white version	FPP-V U3: 4H-16-4T argon FPP-V L3 / FPU-V L3: 4H-14-33.1T argon FPU-V U3: 4H-16-4T argon FPU-V U3: 4H-16-4T argon	Resistance against windload	EN 12210	Class C5/B5
		Tightness against driving rain	EN 12208	Class E1050
		Impact resistance (ext. imp.)	EN 13049	Class 3
		Performance characteristics	EN 14351-1	Pass
		Noise insulation value Rw	EN ISO 140-3/ EN ISO 717-1	32 (-1;-5)dB- FPP-V U3 35 (-1;-3)dB- FPP-V L3
		Heat transfer coefficient Uw	EN ISO 12567-2	1,3 W/(m ² ·K)
		Air permeability	EN 12207	Class 4
FHP-V autoSelect (FHP-V U3, FHP-V L3) FHU-V U3 autoSelect	FHP-V U3: 4H-16-4T argon FHP-V L3: 4H-14-33.1T argon FHU-V U3: 4H-16-4T argon	Resistance against windload	EN 12210	Class C5/B5
		Tightness against driving rain	EN 12208	Class E1050
		Impact resistance (ext. imp.)	EN 13049	Class 3
		Performance characteristics	EN 14351-1	Pass
		Noise insulation value Rw	EN ISO 140-3/ EN ISO 717-1	32 (-2;-5)dB- FHP-V U3 35 (-1;-4)dB- FHP-V L3
		Heat transfer coefficient Uw	EN ISO 12567-2	1,4 W/(m ² ·K)
		Air permeability	EN 12207	Class 4



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FW.. (FWR U3/FWL _{U3} , FWR L3/ FWL _{L3}) R- right L- left	FWR _{U3} /FWL _{U3} : 4H-16-4T argon FWR _{L3} /FWL _{L3} : 4H-14-33.1T R- right L- left	Resistance against windload	EN 12210	Class C5
		Tightness against driving rain	EN 12208	Class 9A
		Noise insulation value R_w	EN ISO 140-3/ EN ISO 717-1	34 (-2;-6)dB - FWR _{U3} /FWL _{U3} 38 (-1;-4)dB - FWR _{L3} /FWL _{L3}
		Heat transfer coefficient U_w	EN ISO 12567-2	1,6 W/(m ² ·K)
		Air permeability	EN 12207	Class 3
FT.. (FTS U2, FTS-V U2, FTP-V U3, FTU-V U3) FTP-V U5/ FTU-V U5 white version FTP-V G6/ FTU-V G6 white version FTP-V L5 FTP-V L3 or FTP-V P2 or FTP-V G4, FTU-V L3 or P2 or G4	FTS U2: 4H-16-4T argon FTS-V U2: 4H-16-4T argon FTP-V U3: 4H-16-4T argon FTU-V U3:4H-16-4T argon FTP-V U5: 4H-10-4H-10-4HT krypton FTP-V L5: 4H-10-4H-8-33.1T krypton FTP-V G6: 6HT-12-33.1T krypton FTP-V L3: 4H-14-33.1T argon or FTP-V P2:4H-14-33.2T argon or G4: 4HT-14-33.2 argon FTU-V L3: 4H-14-33.1T argon or P2 :4H-14-33.2T or G4: 4HT-14-33.2 argon	Resistance against windload	EN 12210	Class C5/B5 Class C5 - FTP-V L5
		Tightness against driving rain	EN 12208	Class E1200
		Impact resistance (ext. imp.)	EN 13049	Class 3
		Performance characteristics	EN 14351-1	Pass
		Noise insulation value R_w	EN ISO 140-3/ EN ISO 717-1	32 (-1;-5)dB - FTS U2, FTS-V U2, FTP-V U3, FTU-V U3 35 (-1;-3)dB - FTP-V L3/P2/G4 34 (-1;-3)dB FTP-V U5 /FTP-V L5
		Heat transfer coefficient U_w	EN ISO 12567-2	0,97 W/(m ² ·K) FTP-V U5/FTU-V U5/FTP-V L5 1,2 W/(m ² ·K) FTP-V G6/FTU-V G6 1,3 W/(m ² ·K) – for others types of roof windows
		Air permeability	EN 12207	Class 4



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PTP (PTP U3/TLP, PTP U3 / GO PTP U3 / PI PTP L3 PTP L3 / GO PTP L3 / PI)	PTP U3: 4H-16-4T argon PTL L3: 4H-14-33.1 argon	Resistance against windload	EN 12210	Class C4/B4	
		Tightness against driving rain	EN 12208	Class E1200	
		Impact resistance (ext. imp.)	EN 13049	Class 3	
		Performance characteristics	EN 14351-1	Pass	
		Heat transfer coefficient Uw	EN ISO 12567-2	1,3 W/(m ² ·K)	
		Air permeability	EN 12207	Class 4	
		PTP U3: 4H-16-4T argon	Noise insulation value Rw	EN ISO 140-3/ EN ISO 717-1	33 (-2; -5) dB- PTP U3
		PTP L3: 4H-14-33.1T argon	Noise insulation value Rw	EN ISO 140-3/ EN ISO 717-1	35 (-1; -3) dB- PTP L3
	PTP-V (PTP-V U3, PTP-V U3 / GO PTP-V U3 / PI PTP-V L3) PTP-V U5 PTP- U5 / GO PTP-V U5 / PI PTP-V L5 PTP-V L5 / GO PTP-V L5 / PI)	PTP-V U3: 4H-16-4T argon PTP-V L3: 4H-14-33.1 argon PTP-V U5: 4HT-8-4H-10-4HT krypton PTP-V L5 4H-8-4HT-8-33.1T krypton	Resistance against windload	EN 12210	Class C4
Tightness against driving rain			EN 12208	Class E1200 – PTP-V U3/PTP-V L3 Class E1050 – PTP-V U5/PTP-V L5	
Impact resistance (ext. imp.)			EN 13049	Class 3	
Performance characteristics			EN 14351-1	Pass	
Heat transfer coefficient Uw			EN ISO 12567-2	1,3 W/(m ² ·K) – PTP-V U3/PTP-V L3 1,1 W/(m ² ·K) – PTP-V U5/PTP-V L5	
Air permeability			EN 12207	Class 3	
		PTP-V U3: 4H-16-4T argon	Noise insulation value Rw	EN ISO 140-3/ EN ISO 717-1	31 (-1; -3) dB - PTP-V U3
		PTP-V L3: 4H-14-33.1T argon	Noise insulation value Rw	EN ISO 140-3/ EN ISO 717-1	33 (-1; -4) dB – PTP-V L3 34 (-2;-6) dB – PTP-V U5



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PPP preSelect (PPP-V U3, PPP-V L3, PPP-V U3/ GO, PPP-V U3/ PI, PPP-V L3/ GO, PPP-V L3/PI)	PPP-V U3 4H-16-4T argon PPP-V L3: 4H-16-33.1T or 4H-14-33.1 argon	Resistance against windload	EN 12210	Class C4
		Tightness against driving rain	EN 12208	Class E900
		Impact resistance (ext. imp.)	EN 13049	Class 3
		Performance characteristics	EN 14351-1	Pass
		Noise insulation value R_w	EN ISO 140-3/ EN ISO 717-1	33 (-1; -4) dB – PPP-V L3 31 (-1; -3) dB – PPP-V U3
		Heat transfer coefficient U_w	EN ISO 12567-2	1,3 W/(m ² ·K)
		Air permeability	EN 12207	Class 4
FYP-V U3 proSky	4H-16-4T argon	Resistance against windload	EN 12210	Class C5
		Tightness against driving rain	EN 12208	Class E1050
		Impact resistance (ext. imp.)	EN 13049	Class 3
		Performance characteristics	EN 14351-1	Pass
		Noise insulation value R_w	EN ISO 140-3/EN ISO 717-1	32 (-1;-5)dB
		Heat transfer coefficient U_w	EN ISO 12567-2	1,3 W/(m ² ·K)
		Air permeability	EN 12207	Class 3
FDY-V U3 Duet proSky	4H-16-4T argon	Resistance against windload	EN 12210	Class C5
		Tightness against driving rain	EN 12208	Class E1050
		Impact resistance (ext. imp.)	EN 13049	Class 3
		Performance characteristics	EN 14351-1	Pass
		Noise insulation value R_w	EN ISO 140-3/EN ISO 717-1	32 (-1;-5)dB
		Heat transfer coefficient U_w	EN ISO 12567-2	1,3 W/(m ² ·K)
		Air permeability	EN 12207	Class 3