GGF Pii Project on warm edge spacers

U-values calculated by CWCT using CEN radiation mode with BISCO

IGU Details	Spacer type										
Spacer manufacturer	Spacer type	Wood Frame Calculations		3 Chamber PVC-U frame Calculations		5 Chamber PVC-U frame Calculations		Aluminium 5 mm thrm. brk Calculations		Aluminium 23 mm thrm. brk Calculations	
Pilkington	Al. Standard type							NB 70 mm frame			
Azon	Azon - Warmlight										
Tremco	Swiggle										
Speedframe	TPS										
St Gobain	Swiss spacer	U-value W/m^2.K	Change W/m^2.K	U-value W/m^2.K	Change W/m^2.K	U-value W/m^2.K	Change %	U-value W/m^2.K	Change %	U-value W/m^2.K	Change %
Edge-Tech	Super spacer										
U-value = 1.7 W/m^2.K	Al. Standard type	1.98		2.01		1.98		2.84		2.33	
Gap = 16 mm	Azon - Warmlight	1.89	-0.09	1.94	-0.07	1.91	-0.07	2.75	-0.08	2.26	-0.08
Fill = Air	Swiggle	1.87	-0.11	1.92	-0.09	1.88	-0.10	2.73	-0.11	2.25	-0.08
Coating = Pilk K	TPS	1.83	-0.15	1.90	-0.11	1.83	-0.15	2.71	-0.13	2.21	-0.13
	Swiss spacer	not calc.	-	1.90	-0.11	1.83	-0.15	not calc.	-	not calc.	-
(ε_1 =0.15)	Super spacer	1.83	-0.16	**1.87**	-0.14	1.79	-0.19	2.67	-0.16	2.17	-0.17
U-value = 1.4 W/m^2.K	Al. Standard type	1.79		**1.82**		1.78		2.63		2.14	
Gap = 16 mm gap	Azon - Warmlight	1.69	-0.10	**1.73**	-0.08	1.71	-0.07	2.54	-0.09	2.04	-0.10
Fill = Air	Swiggle	1.66	-0.12	**1.71**	-0.10	1.67	-0.11	2.52	-0.11	2.03	-0.11
Coating = Optitherm +	TPS	1.63	-0.16	**1.69**	-0.12	1.62	-0.16	2.50	-0.13	1.98	-0.16
	Swiss spacer	not calc.	-	**1.69**	-0.12	1.62	-0.16	not calc.	-	not calc.	-
(ε_1 =0.04)	Super spacer	**1.59**	-0.19	**1.66**	-0.16	**1.58**	-0.20	**2.46**	-0.17	**1.94**	-0.20
U-value = 1.16 W/m^2.K	Al. Standard type	1.63		1.66		1.63		2.47		1.97	
Gap =16 mm gap	Azon - Warmlight	1.53	-0.10	1.57	-0.09	1.55	-0.08	2.38	-0.08	1.86	-0.11
Fill = 90% Argon	Swiggle	1.50	-0.13	1.55	-0.11	1.51	-0.12	2.35	-0.11	1.85	-0.12
Coating = Optitherm +	TPS	1.47	-0.17	1.54	-0.12	1.46	-0.17	2.33	-0.13	1.80	-0.16
	Swiss spacer	not calc.	-	1.53	-0.13	1.46	-0.17	not calc.	-	not calc.	-
(ε_1 =0.04)	Super spacer	1.43	-0.20	**1.49**	-0.17	1.41	-0.22	2.29	-0.18	1.76	-0.21