

# Complex Glazing Database: Version 10.0

Windows and Envelope Materials Group, Lawrence Berkeley National Laboratory; <https://windows.lbl.gov/software/CGDB/index.html>

## Notes for 10.0:

Any products with XML files have been set to Version 10.0 because of changes to the Permeability (previously called Openness Factor)

Alkenz had multiple Manufacturer names in previous versions. All those records now have Manufacturer name = Alkenz, and have been set to CGDB V 9.0 because of this name change.

In WINDOW 7.5, the program automatically calculates the openness factor for Venetian blind (horizontal), Venetian blind (vertical) and Perforated Screens. The products in the CGDB for WINDOW 7.4 have been updated with those calculated values from WINDOW 7.5. In addition, the openness factor for Type = "Shade with XML data" has been set to the TIR value from each of the XML files.

## Notes for 9.0:

Some Intigral, ODL, Phifer, Shanghai King and Trimlite products had incorrect version numbers in previous databases and release notes. That has been corrected in this version of the release notes and the database.

## Notes for 8.0:

All ODL products have been updated for this version.

## Alkenz

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
7000	Sunshadow 3000, N901 Charcoal	BSDF File	10	@	2011-SA31.XML	1	0.15	0.847	0.847	0.0661	0.048	0.052	0.052	0.043	0.043	0.052	0.052	0.041	0.041
7001	Sunshadow 3100, N002 white/bone	BSDF File	10	@	2011-SA30.XML	1	0.15	0.785	0.785	0.128	0.089	0.228	0.228	0.605	0.605	0.292	0.292	0.541	0.541
7002	Sunshadow 4000, N902 Charcoal/Bronze	BSDF File	10	@	2011-SA27.XML	1	0.15	0.815	0.815	0.0933	0.070	0.073	0.073	0.062	0.062	0.079	0.079	0.072	0.072
7003	Sunshadow 4100, N301 Grey	BSDF File	10	@	2011-SA28.XML	1	0.15	0.785	0.785	0.1186	0.065	0.08	0.08	0.314	0.314	0.108	0.108	0.305	0.305
7004	Sunshadow CA, CA02 White Moccasin	BSDF File	10	@	2011-SA29.XML	1	0.15	0.817	0.817	0.087	0.077	0.208	0.208	0.666	0.666	0.255	0.255	0.609	0.609

**Alkenz**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
7005	3000 NET 5% N901 Charcoal/Charcoal	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 5 N901 Charcoal-Charcoal-SE01.xml	0	0.3	0.848	0.848	0.0662	0.051	0.054	0.054	0.048	0.048	0.055	0.055	0.047	0.047
7006	4000 NET 5% N901 Charcoal/Charcoal	BSDF File	10	@	Alkenz-Sunshadow 4000 NET 5 N901 Charcoal-Charcoal-SE02.xml	0	0.3	0.841	0.841	0.074	0.057	0.060	0.060	0.044	0.044	0.061	0.061	0.042	0.042
7007	3000 NET 5% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 5 N001 White-White-SE03.xml	0	0.3	0.831	0.831	0.0877	0.07	0.197	0.197	0.780	0.780	0.249	0.249	0.68	0.68
7008	4000 NET 5% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 4000 NET 5 N001 White-White-SE04.xml	0	0.3	0.843	0.843	0.074	0.066	0.161	0.161	0.776	0.776	0.211	0.211	0.688	0.688
7009	3000 HT 5% HT01 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 HT 5 HT01 White-White-SE05.xml	0	0.3	0.835	0.835	0.0811	0.058	0.204	0.204	0.761	0.761	0.254	0.254	0.671	0.671
7010	3000 HT 5% HT03 White/Light Gray	BSDF File	10	@	Alkenz-Sunshadow 3000 HT 5 HT03 White-Light Gray-SE06rev.xml	0	0.3	0.864	0.808	0.0864	0.061	0.154	0.159	0.641	0.467	0.209	0.214	0.575	0.451
7011	3000 HT 5% HT09 White/Charcoal	BSDF File	10	@	Alkenz-Sunshadow 3000 HT 5 HT09 White-Charcoal-SE07rev.xml	0	0.3	0.86	0.863	0.0574	0.058	0.078	0.085	0.511	0.153	0.084	0.094	0.427	0.126
7012	3000 NET 5% N901 Beige/Sable	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 5 N901 Beige-Sable-SE08rev.xml	0	0.3	0.845	0.845	0.0741	0.058	0.126	0.126	0.451	0.451	0.199	0.199	0.454	0.454
7013	4000 NET 5% N901 Beige/Sable	BSDF File	10	@	Alkenz-Sunshadow 4000 NET 5 N901 Beige-Sable-SE09.xml	0	0.3	0.834	0.834	0.081	0.062	0.107	0.107	0.446	0.446	0.169	0.169	0.448	0.448

**Alkenz**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
7014	3000 CA 3% CA01 White/Floral White	BSDF File	10	@	Alkenz-Sunshadow 3000 CA 3 CA01 White-Floral White-SE10.xml	0	0.3	0.851	0.851	0.0663	0.047	0.217	0.217	0.768	0.768	0.265	0.265	0.677	0.677
7015	3000 NET 1% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 1 N001 White-White-SE11.xml	0	0.3	0.895	0.895	0.0333	0.002	0.124	0.124	0.845	0.845	0.175	0.175	0.740	0.740
7016	3000 NET 3% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 3 N001 White-White-SE12.xml	0	0.3	0.839	0.839	0.0813	0.038	0.156	0.156	0.813	0.813	0.208	0.208	0.711	0.711
7017	3000 NET 5% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 5 N001 White-White-SE13.xml	0	0.3	0.864	0.864	0.0668	0.056	0.179	0.179	0.789	0.789	0.230	0.230	0.69	0.69
7018	3000 NET 10% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 NET 10 N001 White-White-SE14.xml	0	0.3	0.825	0.825	0.1111	0.09	0.218	0.218	0.759	0.759	0.268	0.268	0.661	0.661
7019	3000 HT 3% HT01 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 HT 3 HT01 White-White-SE15.xml	0	0.3	0.93	0.93	0.0001	0.04	0.175	0.175	0.766	0.766	0.224	0.224	0.677	0.677
7020	3000 HT 5% HT01 White/White	BSDF File	10	@	Alkenz-Sunshadow 3000 HT 5 HT01 White-White-SE16.xml	0	0.3	0.880	0.880	0.0581	0.045	0.19	0.19	0.769	0.769	0.245	0.245	0.673	0.673
7021	VIEW R 15% R103 White/Gray	BSDF File	10	@	Alkenz-Sunshadow VIEW R 15 R103 White-Gray-SE17.xml	0	0.3	0.748	0.748	0.1995	0.173	0.232	0.232	0.511	0.511	0.262	0.262	0.455	0.455
7022	4700 P Q 1% P012 White/Beige/Beige	BSDF File	10	@	Alkenz-Sunshadow 4700 P Q 1 P012 White-Beige-Beige-SE18.xml	0	0.3	0.917	0.917	0.0001	0.0005	0.102	0.102	0.691	0.691	0.16	0.16	0.623	0.623

## Alkenz

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
7023	4700 P Q 1% Q001 White/Cream/Alabaster Beige	BSDF File	10	@	Alkenz-Sunshadow 4700 P Q 1 Q001 White-Cream-Alabaster Beige-SE19rev.xml	0	0.3	0.813	0.813	0.0931	0.0005	0.124	0.131	0.769	0.729	0.171	0.178	0.681	0.657
7024	4000 NET 3% N001 White/White	BSDF File	10	@	Alkenz-Sunshadow 4000 NET 3 N001 White-White-SE20.xml	0	0.3	0.833	0.833	0.0655	0.058	0.151	0.151	0.78	0.78	0.199	0.199	0.693	0.693
7025	Sunshadow - 3000 CA 3 CA09 Charcoal/Charcoal	BSDF File	10	@	SE56.xml	0	0.12	0.849	0.849	0.0743	0.051	0.054	0.054	0.043	0.043	0.055	0.055	0.042	0.042
7026	Sunshadow - 3000 NET 1 N901 Charcoal/Charcoal	BSDF File	10	@	SE57.xml	0	0.12	0.866	0.866	0.0577	7E-05	1E-04	1E-04	0.045	0.045	0.00010	0.0001	0.044	0.044
7027	Sunshadow - 3000 NET 10 N901 Charcoal/Charcoal	BSDF File	10	@	SE58.xml	0	0.12	0.847	0.847	0.0817	0.095	0.100	0.100	0.043	0.043	0.101	0.101	0.042	0.042
7028	Sunshadow - 3000 HT 5 HT09 White/Charcoal	BSDF File	10	@	SE59.xml	0	0.12	0.829	0.830	0.0909	0.074	0.113	0.1	0.162	0.501	0.115	0.101	0.155	0.481
7029	Sunshadow - VIEW R 15 R900 Charcoal/Charcoal	BSDF File	10	@	SE60.xml	0	0.12	0.734	0.734	0.1912	0.151	0.156	0.156	0.036	0.036	0.156	0.156	0.036	0.036

## Comfortex

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
8000	E5035 White	BSDF File	10	@	2011-SA32.XML	1	0.15	0.551	0.551	0.2796	0.076	0.679	0.679	0.518	0.518	0.693	0.693	0.297	0.297
8001	PSB38 White	BSDF File	10	@	2011-SA33.XML	1	0.15	0.662	0.662	0.1695	0	0.629	0.629	0.369	0.369	0.637	0.637	0.356	0.356
8002	MT780977181 White	BSDF File	10	@	2011-SA34.XML	1	0.15	0.845	0.845	0.0003	0	6E-06	6E-06	0.800	0.800	0.00020	0.0002	0.676	0.676
8003	E5070 White	BSDF File	10	@	2011-SA35.XML	1	0.15	0.708	0.708	0.1261	0.008	0.466	0.466	0.531	0.531	0.482	0.482	0.501	0.501
8004	E5035DK WhiteX	BSDF File	10	@	2011-SA36.XML	1	0.15	0.807	0.807	0.0451	0	6E-06	6E-06	0.801	0.801	0.00030	0.0003	0.641	0.641

## Dickson - Glen Raven

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
10020	SWN-M005	BSDF File	10	@	Dickson-Glen Raven SWN-M005-SE33.xml	0	0.3	0.733	0.733	0.1944	0.137	0.291	0.291	0.671	0.671	0.311	0.311	0.602	0.602
10021	SWN-M652	BSDF File	10	@	Dickson-Glen Raven SWN-M652-SE34.xml	0	0.3	0.731	0.731	0.1974	0.13	0.155	0.155	0.242	0.242	0.17	0.17	0.231	0.231
10022	SWK M005	BSDF File	10	@	Dickson-Glen Raven SWK-M005-SE35.xml	0	0.3	0.819	0.819	0.0804	0.060	0.263	0.263	0.722	0.722	0.291	0.291	0.647	0.647
10023	SWK M391	BSDF File	10	@	Dickson-Glen Raven SWK-M391-SE36.xml	0	0.3	0.743	0.743	0.1647	0.064	0.067	0.067	0.128	0.128	0.068	0.068	0.054	0.054
10024	SWK M654	BSDF File	10	@	Dickson-Glen Raven SWK-M654-SE37.xml	0	0.3	0.803	0.803	0.1042	0.060	0.155	0.155	0.502	0.502	0.189	0.189	0.459	0.459
10025	SWC M005	BSDF File	10	@	Dickson-Glen Raven SWC-M005-SE38.xml	0	0.3	0.856	0.83	0.044	0.028	0.279	0.279	0.694	0.694	0.299	0.299	0.629	0.629
10026	SWC M392	BSDF File	10	@	Dickson-Glen Raven SWC-M392-SE39.xml	0	0.3	0.888	0.838	0.0232	0.028	0.056	0.055	0.244	0.244	0.056	0.055	0.068	0.081
10027	SWC M654	BSDF File	10	@	Dickson-Glen Raven SWC-M654-SE54.xml	0	0.3	0.853	0.848	0.0464	0.03	0.149	0.188	0.495	0.48	0.179	0.217	0.465	0.453
10028	SWN M654	BSDF File	10	@	Dickson-Glen Raven SWN-M654-SE55.xml	0	0.3	0.722	0.718	0.2021	0.149	0.200	0.206	0.459	0.447	0.221	0.226	0.417	0.405

## Ferrari Textiles Corporation

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
9000	Preconstraint 502, 8861 - Vanilla	BSDF File	10	@	2011-SA41.XML	1	0.15	0.894	0.894	0.0002	7E-05	0.03	0.03	3.186	3.186	0.09	0.09	0.644	0.644
9001	Soltis 86, 2002 - Sand	BSDF File	10	@	2011-SA40.XML	1	0.15	0.716	0.716	0.2078	0.135	0.208	0.208	0.463	0.463	0.255	0.255	0.476	0.476
9002	Soltis 92, 2002 - Sand	BSDF File	10	@	2011-SA39.XML	1	0.15	0.801	0.801	0.1147	0.057	0.130	0.130	0.536	0.536	0.185	0.185	0.543	0.543

## Ferrari Textiles Corporation

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
9003	Soltis 93, 3002 - Sand	BSDF File	10	@	2011-SA38.XML	1	0.15	0.837	0.837	0.0739	0.036	0.1	0.1	0.546	0.546	0.157	0.157	0.561	0.561
9004	Soltis B92N, 1043 - Bronze	BSDF File	10	@	2011-SA37.XML	1	0.15	0.828	0.828	0.0001	0	2E-05	2E-05	0.293	0.293	0	0	0.132	0.132

## Generic

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
1	Venetian A0	Venetian	1																
2	Venetian A45	Venetian	1																
3	Venetian A90	Venetian	1																
4	Venetian B0	Venetian	1																
5	Venetian B45	Venetian	1																
6	Venetian B90	Venetian	1																
7	Venetian C0	Venetian	1																
8	Venetian C45	Venetian	1																
9	Venetian C80	Venetian	1																
10	Venetian C90	Venetian	1																
11	Venetian D0	Venetian	1																
12	Venetian D45	Venetian	1																
13	Venetian D90	Venetian	1																
15	Diffusing Shade	Diffusing Shade	1																
16	WINDAT Shade with Spectral Data	Venetian	1																
17	White Frit	Fritted Glass	1																
19	Woven shade. Gray. 25% open area	Woven Shade	1																
20	Off White Blind 24 mm slat at 45 degrees	Venetian	1																

**Generic**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB	
21	Dark Blue Blind 24 mm slat at 45 degrees	Venetian	1																	
22	Clear Frit (no pigment)	Fritted Glass	1																	
23	Woven shade. Gray. 3% open area	Woven Shade	1																	
24	Woven shade. Gray. 10% open area	Woven Shade	1																	
28	Perforated screen. 8.7% open area	Perforated Screen	1																	
29	1" horizontal VB (white) - 45 deg	Venetian	1																	
30	3" horizontal VB (white) - 45 deg	Venetian	1																	
31	3" vertical VB (white) - 0 deg (open)	Vert Louver	1																	
32	0.4" inbetween VB (white) - 45 deg	Venetian	1																	
50	Cellular Shade. Single cell, light color	Cellular Shade	10		ID50_CS.thmx	20		0.806	0.806	0.0083	0	0.225	0.225	0.659	0.66	0.218	0.217	0.632	0.632	
51	Cellular Shade. Stacked double cell, light color	Cellular Shade	10		ID51_CS.thmx	24		0.79	0.79	0.0003	0	0.06	0.06	0.68	0.679	0.057	0.057	0.653	0.651	
52	Cellular Shade. cell-in-cell, light color	Cellular Shade	10		ID52_CS.thmx	35		0.876	0.875	0.0003	0.009	0.038	0.037	0.547	0.548	0.038	0.037	0.506	0.508	
53	Cellular Shade. Single cell, blackout, low-e	Cellular Shade	10		ID53_CS.thmx	39		0.905	0.905	1E-05	0	0	0	0.568	0.567	0	0	0.554	0.553	
54	Cellular Shade. Single cell, light color, sheer	Cellular Shade	10		ID54_CS.thmx	26		0.668	0.668	0.2031	0.59	0.558	0.557	0.392	0.392	0.561	0.561	0.383	0.383	

**Glen Raven**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
10001	Firesist, Sand 82006	BSDF File	10	@	2011-SA55.XML	1	0.15	0.835	0.835	0.0459	0.0001	0.024	0.024	0.29	0.29	0.054	0.054	0.327	0.327
10002	Firesist, Black 82008	BSDF File	10	@	2011-SA85.XML	1	0.15	0.896	0.896	0.0002	0.0002	5E-06	5E-06	0.038	0.038	0	0	0.042	0.042
10003	Sunbrella awning, Black 4608	BSDF File	10	@	2011-SA45.XML	1	0.15	0.835	0.835	0.0565	0	2E-05	2E-05	0.022	0.022	9E-06	9E-06	0.021	0.021
10004	Sunbrella awning, Taupe 4648	BSDF File	10	@	2011-SA46.XML	1	0.15	0.764	0.764	0.0438	4E-06	0.0009	0.0009	0.149	0.149	0.005	0.005	0.19	0.19
10005	Sunbrella awning, Heather Beige 4672	BSDF File	10	@	2011-SA47.XML	1	0.15	0.805	0.805	0.0002	3E-05	0.008	0.008	0.245	0.245	0.034	0.034	0.323	0.323
10006	Sunbrella awning, Brass 4658	BSDF File	10	@	2011-SA48.XML	1	0.15	0.76	0.76	0.0626	6E-05	0.011	0.011	0.239	0.239	0.038	0.038	0.305	0.305
10007	Sunbrella awning, Oyster 4642	BSDF File	10	@	2011-SA49.XML	1	0.15	0.771	0.771	0.0441	0.0002	0.137	0.137	0.562	0.562	0.18	0.18	0.608	0.608
10008	Sunbrella awning, Natural 4604	BSDF File	10	@	2011-SA50.XML	1	0.15	0.79	0.79	6E-05	0.001	0.207	0.207	0.684	0.684	0.21	0.21	0.676	0.676
10009	Sunbrella awning, Linen 4633	BSDF File	10	@	2011-SA51.XML	1	0.15	0.781	0.781	0.0311	0.0002	0.033	0.033	0.371	0.371	0.125	0.125	0.52	0.52
10010	Sunbrella awning, Cadet Gray 4630	BSDF File	10	@	2011-SA52.XML	1	0.15	0.761	0.761	0.0437	6E-05	0.011	0.011	0.277	0.277	0.118	0.118	0.479	0.479
10011	Sunbrella awning, Green 4637	BSDF File	10	@	2011-SA53.XML	1	0.15	0.837	0.837	0.0002	7E-06	7E-06	7E-06	0.042	0.042	0.0003	0.0003	0.074	0.074
10012	Sunbrella awning, Dubonnet Tweed 4606	BSDF File	10	@	2011-SA54.XML	1	0.15	0.861	0.861	0.0009	0	0.0002	0.0002	0.044	0.044	0.011	0.011	0.124	0.124
10013	Sunbrella shade, Black 4608	BSDF File	10	@	2011-SA57.XML	1	0.15	0.835	0.835	0.0565	0	6E-06	6E-06	0.024	0.024	2E-05	2E-05	0.024	0.024
10014	Sunbrella shade, Ebony 318	BSDF File	10	@	2011-SA58.XML	1	0.15	0.802	0.802	0.0643	0.023	0.041	0.041	0.062	0.062	0.046	0.046	0.075	0.075
10015	Sunbrella shade, Eggshell 173	BSDF File	10	@	2011-SA56.XML	1	0.15	0.704	0.704	0.0867	0.025	0.284	0.284	0.559	0.559	0.301	0.301	0.569	0.569
10016	Sunvision Ecru	BSDF File	10	@	2014-SC39.XML	0	0.15	0.669	0.669	0.1831	0.139	0.345	0.345	0.590	0.590	0.364	0.364	0.559	0.559
10017	Sunvision Ardoise	BSDF File	10	@	2014-SC40.XML	0	0.15	0.685	0.685	0.1655	0.109	0.144	0.144	0.079	0.079	0.155	0.155	0.097	0.097
10018	Sunvision Perle	BSDF File	10	@	2014-SC41.XML	0	0.15	0.657	0.657	0.1817	0.104	0.189	0.189	0.243	0.243	0.222	0.222	0.255	0.255



## Goodearl and Bailey

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
3500	Dickson Orchestra #0681 Dune	BSDF File	10	@	Goodearl and Bailey-Dickson Orchestra 0681 Dune-oz03.xml	1	0.14	0.755	0.755	0.0436	0.0002	0.069	0.069	0.398	0.398	0.126	0.126	0.474	0.474

## Helioscreen

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
7500	Platinum Charcoal	BSDF File	10	@	Helioscreen-Platinum Charcoal-oz02.xml	1	0.14	0.53	0.884	0.0545	0.025	0.038	0.038	0.354	0.354	0.113	0.105	0.413	0.283
7501	Platinum Iron	BSDF File	10	@	Helioscreen-Platinum Iron-oz01.xml	1	0.14	0.605	0.923	0.0137	0.023	0.110	0.106	0.431	0.431	0.14	0.132	0.451	0.396

## Hunter Douglas

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
14000	Architella Elan 3/4" Semi-Opaque (C22)	Cellular Shade	10	@	HunterDouglas_C22.thmx	35		0.876	0.875	0.0003	0.009	0.038	0.037	0.547	0.548	0.038	0.037	0.506	0.508
14001	Architella Elan 3/4" Opaque (C23)	Cellular Shade	10	@	HunterDouglas_C23.thmx	36		0.882	0.882	4E-05	0	1E-04	0.0001	0.582	0.584	0.00010	0.0001	0.55	0.55
14002	Classic 3/4" Semi-Opaque (D2)	Cellular Shade	10	@	HunterDouglas_D2.thmx	36		0.89	0.89	0.0134	0.025	0.285	0.286	0.538	0.538	0.288	0.288	0.52	0.520
14003	Classic 3/4" Opaque (D7)	Cellular Shade	10	@	HunterDouglas_D7.thmx	39		0.905	0.905	1E-05	0	0	0	0.568	0.567	0	0	0.554	0.553
14004	Whisper 3/4" Sheer (D8)	Cellular Shade	10	@	HunterDouglas_D8.thmx	26		0.668	0.668	0.2031	0.59	0.558	0.557	0.392	0.392	0.561	0.561	0.383	0.383
14005	Architella Trielle Elan 1-1/2" Semi-Opaque (C82)	Cellular Shade	10	@	HunterDouglas_C82.thmx	62		0.880	0.881	0.0001	0	0.003	0.003	0.541	0.541	0.003	0.003	0.500	0.5
14006	Architella Trielle Elan 1-1/2" Opaque (C83)	Cellular Shade	10	@	HunterDouglas_C83.thmx	62		0.881	0.881	7E-05	0	6E-05	3E-05	0.555	0.555	5E-05	4E-05	0.515	0.514

## Hunter Douglas

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
14050	ECOVIEW Plus Midnight Storm	BSDF File	10	@	Hunter Douglas-ECOVIEW Plus Midnight Storm-oz27.xml	1	0.14	0.86	0.86	0.0666	0	0.076	0.076	0.092	0.092	0.08	0.08	0.099	0.099
14051	NOVASCREEEN Granite	BSDF File	10	@	Hunter Douglas-NOVASCREEEN Granite-oz26.xml	1	0.14	0.879	0.849	0.0699	0.053	0.078	0.077	0.367	0.367	0.080	0.08	0.323	0.131

## Inflector Windows Insulators

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
12000	In'Flector Radiant Barrier Window Insulator	BSDF File	10	@	2011-SA99.XML	1	0.15	0.706	0.592	0.1664	0.245	0.253	0.253	2.287	2.287	0.254	0.254	0.061	0.061
12001	Solar Selective Window Insulator	BSDF File	10	@	2011-SB13.XML	1	0.15	0.718	0.718	0.2027	0.206	0.172	0.172	39.71	39.71	0.254	0.254	0.061	0.061

## Intigral

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
24000	Alabaster Venetian Blind Open (Intigral)	Venetian	6	#															
24001	Alabaster Venetian Blind Closed (Intigral)	Venetian	6	#															
24002	Alabaster Venetian Blind 45 (Intigral)	Venetian	6	#															
24003	White Satin Venetian Blind Open (Intigral)	Venetian	6	#															
24004	White Satin Venetian Blind Closed (Intigral)	Venetian	6	#															
24005	White Satin Venetian Blind 45 (Intigral)	Venetian	6	#															

## Intigral

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
24006	Tan Venetian Blind Open (Intigral)	Venetian	9	#															
24007	Tan Venetian Blind Closed (Intigral)	Venetian	9	#															
24008	Tan Venetian Blind 45 (Intigral)	Venetian	9	#															

## Levolor

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
11000	Origami	BSDF File	10	@	2014-SC42.XML	0	0.15	0.690	0.690	0.1018	0.005	0.033	0.033	0.305	0.305	0.102	0.102	0.427	0.427
23000	Accordia Classic LF Toffee	Cellular Shade	10	@	Levolor_19570216.t hmx	22		0.833	0.845	0.0193	0.035	0.200	0.2	0.506	0.197	0.237	0.237	0.494	0.25
23001	Accordia LF Cream	Cellular Shade	10	@	Levolor_19170202.t hmx	24		0.792	0.865	0.015	0.01	0.268	0.269	0.596	0.547	0.265	0.265	0.577	0.54
23002	Accordia Designer Colors LF Snow	Cellular Shade	10	@	Levolor_19470199.t hmx	20		0.806	0.806	0.0083	0	0.225	0.225	0.659	0.66	0.218	0.217	0.632	0.632
23003	Accordia Designer Colors LF Snow	Cellular Shade	10	@	Levolor_12470199.t hmx	24		0.79	0.79	0.0003	0	0.06	0.06	0.68	0.679	0.057	0.057	0.653	0.651
23004	Classic RD snow	Cellular Shade	10	@	Levolor_19070199.t hmx	26		0.848	0.848	1E-05	0	0	0	0.702	0.702	0	0	0.698	0.697
23005	Mosaic RD Snow	Cellular Shade	10	@	Levolor_53970199.t hmx	33		0.793	0.793	0.0012	0	6E-06	1E-05	0.705	0.705	2E-05	1E-05	0.697	0.697

## Living Shade

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
2000	Twilight 279-A10 Light Grey	BSDF File	10	@	Living Shade-Twilight 279-A10 Light Grey-oz12.xml	1	0.14	0.430	0.818	0.0821	0.081	0.166	0.170	0.493	0.493	0.164	0.167	0.507	0.378

## MechoShade

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
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## MechoShade

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
15000	EuroTwill Reversible Twill Weave Shadecloth 3%,6220 black/white	BSDF File	10	@	2011-SA59.XML	1	0.15	0.827	0.827	0.0875	0.063	0.093	0.09	0.382	0.626	0.106	0.101	0.32	0.534
15001	EuroTwill Reversible Twill Weave Shadecloth 3%,6020 white/black	BSDF File	10	@	2011-SA60.XML	1	0.15	0.828	0.828	0.1001	0.053	0.083	0.08	0.377	0.636	0.096	0.091	0.318	0.548

## Mermet

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
16000	Natte White	BSDF File	10	@	2011-SA24.XML	1	0.15	0.774	0.774	0.1487	0.113	0.262	0.262	0.698	0.698	0.279	0.279	0.625	0.625
16001	Natte Charcoal	BSDF File	10	@	2011-SA43.XML	1	0.15	0.787	0.787	0.1415	0.111	0.116	0.116	0.060	0.060	0.117	0.117	0.06	0.06
16002	Satine Charcoal	BSDF File	10	@	2011-SA25.XML	1	0.15	0.82	0.82	0.0935	0.050	0.055	0.055	0.059	0.059	0.057	0.057	0.059	0.059
16003	Satine White	BSDF File	10	@	2011-SA26.XML	1	0.15	0.826	0.826	0.0807	0.048	0.214	0.214	0.747	0.747	0.228	0.228	0.673	0.673
16004	Vienne Charcoal	BSDF File	10	@	2011-SA44.XML	1	0.15	0.827	0.827	0.0939	0.095	0.102	0.102	0.064	0.064	0.103	0.103	0.065	0.065
16010	Lintex 600400 White 9038	BSDF File	10	@	Mermet-Lintex 60040 White 9038-oz33.xml	1	0.14	0.778	0.778	0.1364	0.0007	0.468	0.468	0.482	0.482	0.476	0.476	0.465	0.465
16011	M-Screen 8505 White 0202	BSDF File	10	@	Mermet-M-Screen 8505 White 0202-oz32.xml	1	0.14	0.825	0.825	0.0874	0.051	0.182	0.182	0.785	0.785	0.204	0.204	0.703	0.703

## Nolan.UDA

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
2500	Horizon 90 Mesh, Grey/Grey	BSDF File	10	@	Nolan_UDA-Horizon 90 Mesh Grey-Grey-oz24.xml	1	0.14	0.753	0.753	0.1731	5E-05	0.221	0.221	0.262	0.262	0.241	0.241	0.259	0.259

## Nysan

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
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# Nysan

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
6000	Hexcel Screen2 (S2) 3%, White Pearl	BSDF File	10	@	2011-SA9.XML	1	0.15	0.792	0.792	0.1140	0.035	0.153	0.168	0.618	0.441	0.185	0.199	0.569	0.436
6001	GreenScreen Eco 3%, Pewter Platinum	BSDF File	10	@	2011-SA2.XML	1	0.15	0.873	0.564	0.0625	0.013	0.040	0.040	0.113	0.113	0.095	0.095	0.32	0.32
6002	GreenScreen Eco 3%, Charcoal Bronze	BSDF File	10	@	2011-SA4.XML	1	0.15	0.82	0.82	0.0935	0.027	0.087	0.087	0.146	0.146	0.333	0.333	0.291	0.291
6003	GreenScreen Eco Dual Tone 3%, Pewter Pearl	BSDF File	10	@	2011-SA3.XML	1	0.15	0.837	0.558	0.0643	0.058	0.154	0.154	0.401	0.401	0.328	0.328	0.329	0.329
6004	GreenScreen Eco 1%, Pearl	BSDF File	10	@	2011-SA11.XML	1	0.15	0.838	0.838	0.0812	0.018	0.238	0.238	0.321	0.321	0.379	0.379	0.421	0.421
6005	GreenScreen Eco 1%, Pewter	BSDF File	10	@	2011-SA12.XML	1	0.15	0.848	0.848	0.0662	0.015	0.095	0.089	0.106	0.117	0.329	0.327	0.328	0.332
6006	Satine 5500 5%, White Pearl	BSDF File	10	@	2011-SA1.XML	1	0.15	0.796	0.796	0.1092	0.05	0.096	0.094	0.482	0.56	0.118	0.116	0.465	0.526
6007	Satine 5500 5%, Dark Grey White	BSDF File	10	@	2011-SA5.XML	1	0.15	0.834	0.834	0.0737	0.044	0.079	0.078	0.317	0.433	0.109	0.108	0.327	0.415
6008	SuperScreen (300) 3%, White Pearl	BSDF File	10	@	2011-SA7.XML	1	0.15	0.856	0.856	0.0573	0.022	0.136	0.136	0.612	0.612	0.168	0.168	0.547	0.547
6009	SuperScreen 3%, Pewter	BSDF File	10	@	2011-SA8.XML	1	0.15	0.868	0.868	0.0468	0.024	0.045	0.045	0.170	0.170	0.088	0.088	0.208	0.208
6010	SuperTwill 3%, Bronze Linen Pewter	BSDF File	10	@	2011-SA10.XML	1	0.15	0.836	0.836	0.0656	0.029	0.074	0.067	0.220	0.374	0.106	0.098	0.226	0.356
6011	SuperWeave 5%, Pewter	BSDF File	10	@	2011-SA6.XML	1	0.15	0.823	0.823	0.0938	0.063	0.078	0.078	0.171	0.171	0.115	0.115	0.209	0.209
6012	Serge (Helioscreen) 3% 2165, Grey White	BSDF File	10	@	2011-SA82.XML	1	0.15	0.862	0.854	0.0519	0.052	0.069	0.067	0.316	0.434	0.095	0.092	0.329	0.420
6013	Serge 2165, Pearl White	BSDF File	10	@	2011-SA81.XML	1	0.15	0.84	0.832	0.0734	0.073	0.123	0.124	0.498	0.568	0.142	0.143	0.460	0.518
6014	Paradise 11600, White	BSDF File	10	@	2011-SA80.XML	1	0.15	0.882	0.882	0.0472	0.047	0.312	0.312	0.632	0.632	0.302	0.302	0.601	0.601

**ODL**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB	
22000	White Venetian Blind, 1.06" IG, Open (ODL)	Venetian	4	#																
22001	White Venetian Blind, 1.06" IG, Closed (ODL)	Venetian	4	#																
22002	White Venetian Blind, 1.06" IG, 45 (ODL)	Venetian	4	#																
22006	Espresso Venetian Blind, 1" IG, Open (ODL)	Venetian	8	#																
22007	Espresso Venetian Blind, 1" IG, Closed (ODL)	Venetian	8	#																
22008	Espresso Venetian Blind, 1" IG, 45 (ODL)	Venetian	8	#																
22009	Sand Venetian Blind, 1" IG, Open (ODL)	Venetian	8	#																
22010	Sand Venetian Blind, 1" IG, Closed (ODL)	Venetian	8	#																
22011	Sand Venetian Blind, 1" IG, 45 (ODL)	Venetian	8	#																
22012	Tan Venetian Blind, 1" IG, Open (ODL)	Venetian	8	#																
22013	Tan Venetian Blind, 1" IG, Closed (ODL)	Venetian	8	#																
22014	Tan Venetian Blind, 1" IG, 45 (ODL)	Venetian	8	#																

**ODL**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB	
22015	White Venetian Blind, 1" IG, Open (ODL)	Venetian	8	#																
22016	White Venetian Blind, 1" IG, Closed (ODL)	Venetian	8	#																
22017	White Venetian Blind, 1" IG, 45 (ODL)	Venetian	8	#																
22020	Espresso Venetian Blind, 1.06" IG, Open (ODL)	Venetian	8	#																
22021	Espresso Venetian Blind, 1.06" IG, Closed (ODL)	Venetian	8	#																
22022	Espresso Venetian Blind, 1.06" IG, 45 (ODL)	Venetian	8	#																
22023	Sand Venetian Blind, 1.06" IG, Open (ODL)	Venetian	8	#																
22024	Sand Venetian Blind, 1.06" IG, Closed (ODL)	Venetian	8	#																
22025	Sand Venetian Blind, 1.06" IG, 45 (ODL)	Venetian	8	#																
22026	Tan Venetian Blind, 1.06" IG, Open (ODL)	Venetian	8	#																
22027	Tan Venetian Blind, 1.06" IG, Closed (ODL)	Venetian	8	#																
22028	Tan Venetian Blind, 1.06" IG, 45 (ODL)	Venetian	8	#																

## Pella

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB	
3000	Slim White VB Closed	Venetian	1	#																
3001	Slim White VB 45	Venetian	1	#																
3002	Slim White Open	Venetian	1	#																
3003	Slim Marine Closed	Venetian	1	#																
3004	Slim Marine 45	Venetian	1	#																
3005	Slim Marine Open	Venetian	1	#																

## Phifer Incorporated

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
17000	sheerWeave 2360, P12 Oyster	BSDF File	10	@	2011-SA23.XML	1	0.15	0.778	0.778	0.1364	0.098	0.255	0.255	0.699	0.699	0.278	0.278	0.622	0.622
17001	sheerWeave 2703, P13 Oyster/Beige	BSDF File	10	@	2011-SA14.XML	1	0.15	0.817	0.817	0.0934	0.044	0.165	0.154	0.555	0.664	0.186	0.176	0.512	0.597
17002	sheerWeave 4000, V 10 Ebony	BSDF File	10	@	2011-SA13.XML	1	0.15	0.808	0.808	0.0988	0.066	0.070	0.070	0.035	0.035	0.071	0.071	0.034	0.034
17003	sheerWeave 4100,V07 Pewter	BSDF File	10	@	2011-SA15.XML	1	0.15	0.803	0.803	0.1042	0.084	0.101	0.101	0.316	0.316	0.108	0.108	0.293	0.293
17004	sheerWeave 5000,Q94 Tweed/Oatmeal	BSDF File	10	@	2011-SA42.XML	1	0.15	0.808	0.808	0.0725	0.051	0.079	0.079	0.314	0.377	0.113	0.112	0.319	0.419
17005	sheerWeave 7300,R29 Hide	BSDF File	10	@	2011-SA16.XML	1	0.15	0.86	0.87	0.0002	9E-06	1E-05	1E-05	0.807	0.17	6E-06	6E-06	0.731	0.446
17006	SunTex 80, Brown	BSDF File	10	@	2011-SA17.XML	1	0.15	0.670	0.670	0.2558	0.274	0.285	0.285	0.035	0.035	0.285	0.285	0.035	0.035
17007	SunTex 90, Black	BSDF File	10	@	2011-SA84.XML	1	0.15	0.782	0.782	0.1231	0.123	0.143	0.143	0.034	0.034	0.143	0.143	0.035	0.035
17008	SuperSolar Screening +, Charcoal	BSDF File	10	@	2011-SA83.XML	1	0.15	0.722	0.722	0.1898	0.19	0.147	0.147	0.047	0.047	0.147	0.147	0.051	0.051
17009	sheerWeave 2390 Performance + Q20 Beige	BSDF File	10	@	2014-SC20.XML	0	0.15	0.162	0.793	0.0465	0.061	0.08	0.077	0.696	0.541	0.083	0.080	0.705	0.507
17010	sheerWeave 2410 Performance + P13 Oyster/Beige	BSDF File	10	@	2014-SC21.XML	0	0.15	0.203	0.831	5E-05	0.037	0.053	0.053	0.704	0.651	0.055	0.055	0.714	0.601



**Phifer Incorporated**

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
17011	sheerWeave 2390 Performance + P13 Oyster/Beige	BSDF File	10	@	2014-SC22.XML	0	0.15	0.168	0.804	0.0279	0.058	0.082	0.080	0.704	0.65	0.084	0.083	0.713	0.594
17012	sheerWeave 2390 Performance + P12 Oyster	BSDF File	10	@	2014-SC23.XML	0	0.15	0.195	0.822	0.0386	0.057	0.084	0.081	0.687	0.742	0.086	0.083	0.697	0.665
17013	sheerWeave 2390 Performance + Q21 Beige/Pearl Gray	BSDF File	10	@	2014-SC24.XML	0	0.15	0.187	0.824	0.0234	0.059	0.077	0.072	0.689	0.453	0.08	0.074	0.698	0.423
17014	sheerWeave 2410 Performance + V20 Pearl Gray	BSDF File	10	@	2014-SC25.XML	0	0.15	0.142	0.828	0.0475	0.034	0.046	0.041	0.714	0.363	0.048	0.042	0.724	0.347
17015	sheerWeave 2410 Performance + Q20 Beige	BSDF File	10	@	2014-SC26.XML	0	0.15	0.179	0.831	0.023	0.042	0.059	0.055	0.702	0.556	0.062	0.058	0.712	0.525
17016	sheerWeave 2410 Performance + V21 Charcoal	BSDF File	10	@	2014-SC27.XML	0	0.15	0.171	0.845	0.0226	0.036	0.044	0.04	0.704	0.045	0.044	0.04	0.713	0.045
17017	sheerWeave 2390 Performance + V22 Charcoal Gray	BSDF File	10	@	2014-SC28.XML	0	0.15	0.176	0.805	0.0446	0.066	0.077	0.072	0.687	0.101	0.077	0.072	0.696	0.095
17018	sheerWeave 2390 Performance + P14 Oyster/Pearl Gray	BSDF File	10	@	2014-SC29.XML	0	0.15	0.161	0.814	0.0660	0.06	0.079	0.075	0.693	0.539	0.081	0.077	0.701	0.493
17019	sheerWeave 2390 Performance + V20 Pearl Gray	BSDF File	10	@	2014-SC30.XML	0	0.15	0.156	0.806	0.0218	0.054	0.068	0.063	0.716	0.356	0.07	0.064	0.726	0.34
17020	sheerWeave 2410 Performance + Q21 Beige/Pearl Gray	BSDF File	10	@	2014-SC31.XML	0	0.15	0.183	0.810	0.0335	0.059	0.077	0.072	0.689	0.449	0.079	0.074	0.699	0.419
17021	sheerWeave 2410 Performance + P12 Oyster	BSDF File	10	@	2014-SC33.XML	0	0.15	0.21	0.862	0.0002	0.029	0.049	0.048	0.703	0.779	0.050	0.049	0.712	0.699

## Phifer Incorporated

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
17022	sheerWeave 2410 Performance + P14 Oyster/Pearl Gray	BSDF File	10	@	2014-SC34.XML	0	0.15	0.179	0.875	0.023	0.031	0.041	0.040	0.710	0.533	0.043	0.042	0.720	0.484
17023	sheerWeave 2390 Performance + V21 Charcoal	BSDF File	10	@	2014-SC35.XML	0	0.15	0.177	0.806	0.0482	0.069	0.083	0.074	0.681	0.044	0.084	0.074	0.691	0.044
17024	sheerWeave 2410 Performance + V22 Charcoal Gray	BSDF File	10	@	2014-SC36.XML	0	0.15	0.172	0.843	0.0227	0.037	0.045	0.041	0.697	0.109	0.046	0.041	0.706	0.101
17025	sheerWeave 2390 Performance + V24 CCL/Chestnut	BSDF File	10	@	2014-SC37.XML	0	0.15	0.185	0.784	0.0553	0.068	0.082	0.073	0.652	0.057	0.083	0.073	0.661	0.067
17026	sheerWeave 2410 Performance + V24 CCL/Chestnut	BSDF File	10	@	2014-SC38.XML	0	0.15	0.181	0.832	0.0006	0.038	0.047	0.041	0.696	0.058	0.048	0.042	0.708	0.069

## Ricky Richards

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
1000	Black, Close Weave	BSDF File	10	@	Ricky Richards-Black Close Weave-oz20.xml	1	0.14	0.842	0.842	0.0740	0.041	0.045	0.045	0.066	0.066	0.045	0.045	0.061	0.061

## Shanghai King Shine Plastic M

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
24500	White Venetian Blind Open (Shanghai King Shine)	Venetian	6.1	#															
24501	White Venetian Blind Closed (Shanghai King Shine)	Venetian	6.1	#															
24502	White Venetian Blind 45 (Shanghai King Shine)	Venetian	6.1	#															

## Shaw

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
1500	Alabaster 2772	BSDF File	10	@	Shaw-Alabaster 2772-oz35.xml	1	0.14	0.88	0.87	0.0002	0	0	0	0.826	0.826	7E-05	3E-05	0.759	0.673
1501	Urbanshade White 2685	BSDF File	10	@	Shaw-Urbanshade White 2685-oz34.xml	1	0.14	0.813	0.813	0.0728	0	0	0	0.850	0.850	0	0	0.798	0.739

## Solar Comfort

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
18000	Solar Comfort Radiant Barrier	Perforated Screen	4	@															

## Springs Windows Fashions

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
21000	Cocoon Mist 3812	BSDF File	10	@	2014-SC5.XML	0	0.15	0.761	0.761	7E-05	0	0.0006	0.0006	0.605	0.721	0.001	0.001	0.662	0.720
21001	Solitude Coffee 1707	BSDF File	10	@	2014-SC6.XML	0	0.15	0.712	0.712	3E-05	0	0.0001	0.0001	0.214	0.688	0.00030	0.0003	0.441	0.710
21002	Zest Spruce 2203	BSDF File	10	@	2014-SC7.XML	0	0.15	0.699	0.699	0.0973	0.009	0.389	0.459	0.345	0.544	0.429	0.461	0.432	0.536
21003	Iron Gate 2441	BSDF File	10	@	2014-SC8.XML	0	0.15	0.715	0.715	0.0875	0.012	0.122	0.465	0.082	0.553	0.282	0.466	0.303	0.547
21004	Daydream Camel	BSDF File	10	@	2014-SC9.XML	0	0.15	0.717	0.717	0.1269	0.036	0.438	0.605	0.241	0.391	0.467	0.608	0.257	0.386
21005	Ferrari FT381	BSDF File	10	@	2014-SC10.XML	0	0.15	0.507	0.623	0.2946	0.238	0.253	0.254	0.412	0.428	0.258	0.259	0.400	0.410

## Sunset Windows and Doors LL

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
27000	Sunset White Venetian Blind Open	Venetian	10	#															
27001	Sunset White Venetian Blind Closed	Venetian	10	#															
27002	Sunset White Venetian Blind 45	Venetian	10	#															

### Trimlite

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
25000	White Venetian Blind Open (Trimlite)	Venetian	6	#															
25001	White Venetian Blind Closed (Trimlite)	Venetian	6	#															
25002	White Venetian Blind 45 (Trimlite)	Venetian	6	#															

### Twitchell

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
19000	ShadeView, Light Grey	BSDF File	10	@	2011-SA19.XML	1	0.15	0.768	0.768	0.144	0.16	0.272	0.272	0.303	0.303	0.288	0.288	0.286	0.286
19001	Sunsure, Royal Blue	BSDF File	10	@	2011-SA20.XML	1	0.15	0.821	0.821	0.0732	0.077	0.087	0.087	0.109	0.109	0.201	0.201	0.303	0.303
19002	Textilene,awning White	BSDF File	10	@	2011-SA18.XML	1	0.15	0.829	0.829	0.0734	0.069	0.132	0.132	0.819	0.819	0.176	0.176	0.73	0.73
19003	Textilene 80, Black	BSDF File	10	@	2011-SA22.XML	1	0.15	0.645	0.645	0.2829	0.28	0.290	0.290	0.029	0.029	0.289	0.289	0.028	0.028
19004	Textilene 90, Black	BSDF File	10	@	2011-SA21.XML	1	0.15	0.781	0.781	0.1277	0.134	0.142	0.142	0.035	0.035	0.142	0.142	0.034	0.034

### Uniline

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
4000	Uniview Charcoal	BSDF File	10	@	Uniline-Uniview Charcoal-oz61.xml	1	0.14	0.861	0.861	0.0749	0.065	0.07	0.07	0.038	0.038	0.07	0.07	0.037	0.037

### Verosol

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
20000	EnviroScreen 810/998, grey(dark)silver	BSDF File	10	@	2011-SA69.XML	1	0.15	0.688	0.293	0.1462	0.112	0.119	0.119	0.115	0.115	0.131	0.131	0.377	0.377
20001	EnviroScreen 810/000, silver/silver	BSDF File	10	@	2011-SA70.XML	1	0.15	0.284	0.284	0.0984	0.129	0.155	0.155	0.543	0.543	0.155	0.155	0.537	0.537

## Verosol

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
20002	EnviroScreen 810/711, gold/silver	BSDF File	10	@	2011-SA71.XML	1	0.15	0.689	0.301	0.1469	0.106	0.141	0.141	0.508	0.508	0.143	0.143	0.529	0.529
20003	EnviroScreen 810/936, grey(light)/silver	BSDF File	10	@	2011-SA72.XML	1	0.15	0.68	0.282	0.1488	0.111	0.125	0.125	0.261	0.261	0.133	0.133	0.440	0.440
20004	SilverScreen EB01,black/silver	BSDF File	10	@	2011-SA73.XML	1	0.15	0.839	0.144	0.0664	0.038	0.041	0.041	0.054	0.054	0.041	0.041	0.052	0.052
20005	SilverScreen EB03,white+light grey/silver	BSDF File	10	@	2011-SA77.XML	1	0.15	0.843	0.164	0.0409	0.034	0.035	0.035	0.14	0.14	0.035	0.035	0.134	0.134
20006	SilverScreen EB04,black+brown/silver	BSDF File	10	@	2011-SA76.XML	1	0.15	0.810	0.138	0.0675	0.035	0.040	0.040	0.064	0.064	0.040	0.040	0.065	0.065
20007	SilverScreen EC01,dark grey/silver	BSDF File	10	@	2011-SA79.XML	1	0.15	0.848	0.124	0.057	0.04	0.047	0.047	0.392	0.392	0.047	0.047	0.378	0.378
20008	SilverScreen EC02,dark+light grey/silver	BSDF File	10	@	2011-SA74.XML	1	0.15	0.841	0.171	0.0442	0	0.044	0.044	0.297	0.297	0.045	0.045	0.307	0.307
20009	SilverScreen ED03,light grey/silver	BSDF File	10	@	2011-SA78.XML	1	0.15	0.819	0.135	0.063	0.037	0.045	0.045	0.587	0.587	0.045	0.045	0.529	0.529
20010	SilverScreen ED04,tan+pearl/silver	BSDF File	10	@	2011-SA75.XML	1	0.15	0.841	0.132	0.0593	0.034	0.042	0.042	0.586	0.586	0.043	0.043	0.562	0.562
20011	SilverScreen 205ED02	BSDF File	10	@	Verosol SilverScreen 205ED02-SE21.xml	0	0.3	0.881	0.117	0.02	0.035	0.046	0.046	0.679	0.679	0.047	0.047	0.633	0.633
20012	SilverScreen 205EC01	BSDF File	10	@	Verosol SilverScreen 205EC01-SE22rev.xml	0	0.3	0.106	0.861	0.02	0.038	0.053	0.048	0.742	0.378	0.054	0.048	0.762	0.358
20013	205-EB03	BSDF File	10	@	Verosol 205-EB03-SE23rev.xml	0	0.3	0.11	0.850	0.0541	0.040	0.053	0.045	0.743	0.131	0.053	0.045	0.763	0.124
20014	205-ED01	BSDF File	10	@	Verosol 205-ED01-SE24rev.xml	0	0.3	0.077	0.833	0.0492	0.041	0.059	0.054	0.762	0.770	0.060	0.054	0.783	0.693

## Verosol

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	εf	εb	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
20015	205-ED04	BSDF File	10	@	Verosol 205-ED04-SE25rev.xml	0	0.3	0.096	0.791	0.0735	0.042	0.059	0.053	0.758	0.557	0.060	0.054	0.774	0.534
20016	205-ED03	BSDF File	10	@	Verosol 205-ED03-SE26rev.xml	0	0.3	0.105	0.833	0.0524	0.04	0.057	0.052	0.746	0.587	0.057	0.052	0.766	0.535
20017	205-EB04	BSDF File	10	@	Verosol 205-EB04-SE27rev.xml	0	0.3	0.104	0.875	0.0354	0.041	0.054	0.046	0.743	0.064	0.055	0.046	0.762	0.064
20018	205-EB02	BSDF File	10	@	Verosol 205-EB02-SE28rev.xml	0	0.3	0.109	0.841	0.0547	0.034	0.045	0.039	0.757	0.088	0.049	0.039	0.783	0.092
20019	202-ED01	BSDF File	10	@	Verosol 202-ED01-SE29rev.xml	0	0.3	0.094	0.854	0.0233	0.019	0.03	0.026	0.749	0.813	0.028	0.027	0.77	0.741
20020	205-EC02	BSDF File	10	@	Verosol 205-EC02-SE31rev.xml	0	0.3	0.114	0.825	0.0567	0.037	0.052	0.045	0.746	0.286	0.053	0.046	0.767	0.293
20021	205-EB01	BSDF File	10	@	Verosol 205-EB01-SE32rev.xml	0	0.3	0.111	0.800	0.0875	0.036	0.045	0.04	0.749	0.054	0.045	0.04	0.764	0.053
20022	SWC M392	BSDF File	10	@	Verosol SWC M392-SE40rev.xml	0	0.3	0.103	0.771	0.1046	0.039	0.041	0.04	0.736	0.112	0.041	0.04	0.755	0.062
20023	304 CC20	BSDF File	10	@	Verosol 304 CC20-SE41rev.xml	0	0.3	0.109	0.721	0.1224	0.039	0.052	0.056	0.739	0.509	0.054	0.059	0.756	0.522
20024	805 000	BSDF File	10	@	Verosol 805 000-SE42rev.xml	0	0.3	0.272	0.786	0.0569	0.047	0.072	0.081	0.678	0.589	0.075	0.083	0.694	0.563
20025	805 711	BSDF File	10	@	Verosol 805 711-SE43rev.xml	0	0.3	0.211	0.774	0.0934	0.046	0.069	0.069	1.494	1.494	0.073	0.073	0.692	0.692
20026	805 765	BSDF File	10	@	Verosol 805 765-SE44rev.xml	0	0.3	0.216	0.766	0.0969	0.048	0.068	0.074	0.686	0.391	0.074	0.081	0.701	0.49
20027	802 765	BSDF File	10	@	Verosol 802 765-SE45rev.xml	0	0.3	0.216	0.827	0.052	0.013	0.029	0.037	0.706	0.431	0.034	0.043	0.725	0.528
20028	802 000	BSDF File	10	@	Verosol 802 000-SE46rev.xml	0	0.3	0.057	0.846	0.0411	0.013	0.034	0.033	0.713	0.623	0.036	0.035	0.73	0.596
20029	802 711	BSDF File	10	@	Verosol 802 711-SE47rev.xml	0	0.3	0.209	0.858	0.0452	0.013	0.032	0.04	0.707	0.518	0.036	0.044	0.724	0.553
20030	802 829	BSDF File	10	@	Verosol 802 829-SE48rev.xml	0	0.3	0.221	0.817	0.056	0.012	0.016	0.017	0.708	0.058	0.028	0.034	0.726	0.372
20031	802 936	BSDF File	10	@	Verosol 802 936-SE49rev.xml	0	0.3	0.206	0.795	0.0669	0.012	0.023	0.029	0.711	0.252	0.031	0.039	0.729	0.461
20032	802 998	BSDF File	10	@	Verosol 802 998-SE50rev.xml	0	0.3	0.23	0.858	0.0164	0.008	0.013	0.016	0.719	0.094	0.025	0.031	0.736	0.394

## Verosol

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
20033	805 998	BSDF File	10	@	Verosol 805 998-SE51rev.xml	0	0.3	0.197	0.753	0.1095	0.043	0.052	0.054	0.69	0.105	0.064	0.071	0.706	0.381
20034	805 936	BSDF File	10	@	Verosol 805 936-SE52rev.xml	0	0.3	0.206	0.831	0.0615	0.044	0.058	0.063	0.692	0.230	0.068	0.075	0.707	0.437
20035	805 829	BSDF File	10	@	Verosol 805 829-SE53rev.xml	0	0.3	0.206	0.76	0.0918	0.049	0.055	0.054	0.681	0.044	0.070	0.075	0.699	0.348

## Viracon

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
5000	Viraspan(TM) Medium Gray (V-948) 30%	Fritted Glass	1																
5001	Simulated Sandblast (V-1086) 70%	Fritted Glass	1																

## WinBuild

ID	Name	Type	DB Ver #	Cert	XML Filename	t (mm)	k (W/m-k)	$\epsilon_f$	$\epsilon_b$	Tir	Perm	TvisF	TvisB	RvisF	RvisB	TsolF	TsolB	RsolF	RsolB
26000	Golden low-E fabric WBI1W	BSDF File	10	@	WBI1W.xml	0	0.12	0.155	0.155	4E-05	0.009	0.012	0.012	0.414	0.414	0.012	0.012	0.431	0.431
26001	Golden low-E fabric WBI1W - 5% openness	BSDF File	10	@	WBI1W_5.xml	0	0.12	0.147	0.147	0.0500	0.059	0.062	0.062	0.394	0.394	0.062	0.062	0.409	0.409
26002	Golden low-E fabric WBI1W - 10% openness	BSDF File	10	@	WBI1W_10.xml	0	0.12	0.139	0.139	0.1000	0.109	0.112	0.112	0.373	0.373	0.112	0.112	0.388	0.388
26003	Golden low-E fabric WBI2W	BSDF File	10	@	WBI2W.xml	0	0.12	0.155	0.155	4E-05	0.009	0.012	0.012	0.442	0.442	0.012	0.012	0.461	0.461
26004	Golden low-E fabric WBI3W	BSDF File	10	@	WBI3W.xml	0	0.12	0.179	0.179	0.2217	0.145	0.171	0.171	0.296	0.296	0.174	0.174	0.315	0.315