

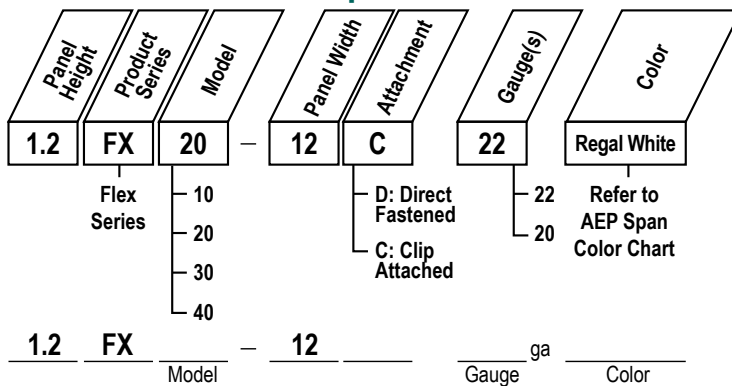
Flex Series



Flex Series is a concealed fastener metal wall collection which offers design flexibility. Ideal for vertical and horizontal wall, fascia, and equipment screen applications.

Flex Series panels are available with a high performance clip, offering unlimited thermal movement while reducing chances of oil canning.

Product Specification Guide



standard features

- Available in two panel attachment configurations - a directly attached fastening flange or clip interlocking hem.
- Two clip options enable panels to be installed flush to substrate or with a 1/2" standoff.
- Panels can be used in a rainscreen system.
- Available in 22ga in standard finishes. 20ga available by special order. - Refer to AEP Span Color Charts for full range of color options, prints, textures, finishes and paint systems.
- Custom colors, thick film primer and/or clear coat paint finishes available. Subject to 3,000 square feet minimum order.
- Custom manufactured sheet lengths from 5'-0" to 25'-0" maximum.
- ASTM E1592 (wind uplift), ASTM E283 (air infiltration), ASTM E331 (water infiltration) tested.
- Panel evaluated by accredited third party. All structural performance data is contained within an IBC/IRC 2018 code compliance report #ER-0309.



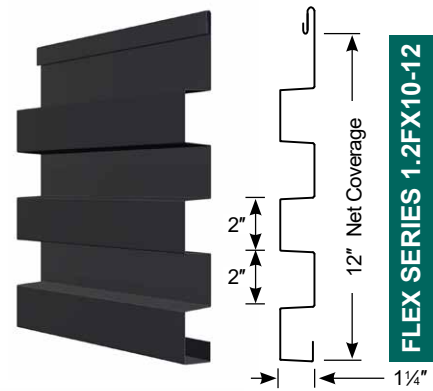
Shown with flush clip



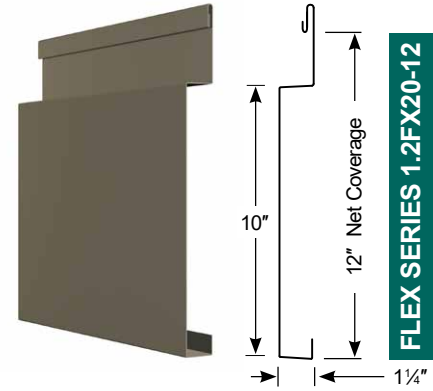
Shown with standoff clip



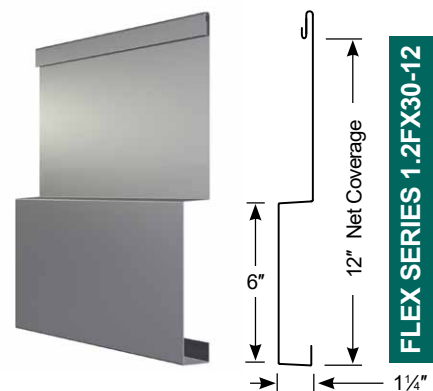
Shown as direct fastened



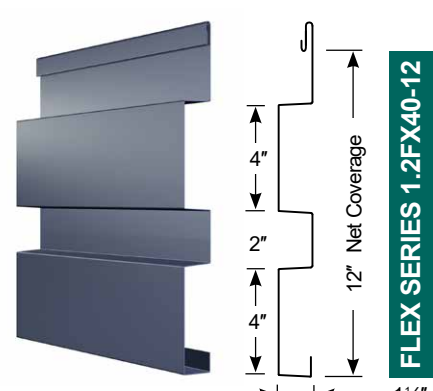
FLEX SERIES 1.2FX10-12



FLEX SERIES 1.2FX20-12



FLEX SERIES 1.2FX30-12



FLEX SERIES 1.2FX40-12

Oil Canning : All flat metal surfaces can display waviness commonly referred to as "oil canning". "Oil canning" is an inherent characteristic of steel products, not a defect, and therefore is not a cause for panel rejection.

Flex Series

Flex Series 1.2FX10-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft ²)	I+ (in ⁴ /ft)	S+ (in ⁴ /ft)	I- (in ⁴ /ft)	S- (in ⁴ /ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.76	0.1349	0.1360	0.1315	0.1527	AZ50	Cool Dura Tech™ 5000 (polyvinylidene fluoride) or Cool Dura Tech™ mx (metallic polyvinylidene)
22	0.0294	50	65	2.22	0.1763	0.1909	0.1721	0.2160	AZ50	
20	0.0354	40	55	2.66	0.2150	0.2614	0.2117	0.2902	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	679	302	170	109	75	55	42
		L/180	1474	437	184	94	55	34	23
	Double Span	ASD, W/Ω	539	318	184	119	83	61	46
		L/180	3551	1052	444	227	132	83	55
	Triple Span	ASD, W/Ω	613	389	227	147	103	76	59
		L/180	2782	824	348	178	103	65	43
22	Single Span	ASD, W/Ω	953	423	238	152	106	78	60
		L/180	1927	571	241	123	71	45	30
	Double Span	ASD, W/Ω	832	445	258	167	117	86	66
		L/180	4641	1375	580	297	172	108	73
	Triple Span	ASD, W/Ω	946	541	316	207	145	107	82
		L/180	3636	1077	454	233	135	85	57
20	Single Span	ASD, W/Ω	1044	464	261	167	116	85	65
		L/180	2349	696	294	150	87	55	37
	Double Span	ASD, W/Ω	936	471	275	178	125	93	71
		L/180	>5k	1677	707	362	210	132	88
	Triple Span	ASD, W/Ω	1064	568	336	221	156	115	88
		L/180	4433	1313	554	284	164	103	69

Flex Series 1.2FX20-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft ²)	I+ (in ⁴ /ft)	S+ (in ⁴ /ft)	I- (in ⁴ /ft)	S- (in ⁴ /ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.40	0.0803	0.0496	0.0986	0.0742	AZ50	Cool Dura Tech™ 5000 (polyvinylidene fluoride) or Cool Dura Tech™ mx (metallic polyvinylidene)
22	0.0294	50	65	1.76	0.1083	0.0715	0.1347	0.1060	AZ50	
20	0.0354	40	55	2.11	0.1407	0.1029	0.1710	0.1505	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	248	110	62	40	28	20	15
		L/180	877	260	110	56	32	20	14
	Double Span	ASD, W/Ω	180	120	86	56	39	29	23
		L/180	2113	626	264	135	78	49	33
	Triple Span	ASD, W/Ω	204	136	102	69	49	36	27
		L/180	1655	490	207	106	61	39	26
22	Single Span	ASD, W/Ω	357	159	89	57	40	29	22
		L/180	1183	350	148	76	44	28	18
	Double Span	ASD, W/Ω	277	185	121	79	55	41	32
		L/180	2849	844	356	182	106	66	45
	Triple Span	ASD, W/Ω	315	210	146	97	69	51	39
		L/180	2232	661	279	143	83	52	35
20	Single Span	ASD, W/Ω	411	183	103	66	46	34	26
		L/180	1537	455	192	98	57	36	24
	Double Span	ASD, W/Ω	312	208	133	88	62	47	35
		L/180	3702	1097	463	237	137	86	58
	Triple Span	ASD, W/Ω	355	236	159	107	76	57	44
		L/180	2900	859	363	186	107	68	45



Flex Series 1.2FX30-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft ²)	I+ (in ² /ft)	S+ (in ² /ft)	I- (in ² /ft)	S- (in ² /ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.40	0.0933	0.0524	0.0954	0.0734	AZ50	Cool Dura Tech™ 5000 (polyvinylidene fluoride) or Cool Dura Tech™ mx (metallic polyvinylidene)
22	0.0294	50	65	1.76	0.1265	0.2488	0.1287	0.1056	AZ50	
20	0.0354	40	55	2.11	0.1652	0.1072	0.1633	0.1524	G90	

Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	262	116	65	42	29	21	16
		L/180	1020	302	127	65	38	24	16
	Double Span	ASD, W/Ω	180	120	85	56	39	29	22
		L/180	2456	728	307	157	91	57	38
	Triple Span	ASD, W/Ω	204	136	102	68	48	35	28
		L/180	1924	570	241	123	71	45	30
22	Single Span	ASD, W/Ω	426	284	213	170	138	101	78
		L/180	1382	410	173	88	51	32	22
	Double Span	ASD, W/Ω	277	185	120	79	55	41	32
		L/180	3330	987	416	213	123	78	52
	Triple Span	ASD, W/Ω	315	210	145	96	69	51	39
		L/180	2609	773	326	167	97	61	41
20	Single Span	ASD, W/Ω	428	190	107	68	48	35	27
		L/180	1805	535	226	116	67	42	28
	Double Span	ASD, W/Ω	312	208	135	89	64	47	36
		L/180	4348	1288	543	278	161	101	68
	Triple Span	ASD, W/Ω	355	236	161	108	77	58	44
		L/180	3406	1009	426	218	126	79	53

Flex Series 1.2FX40-12 - Properties and Allowable Inward Loads (See notes on back)

Properties									Standard Finishes	
Gauge	Base Steel Thickness (in)	Yield (ksi)	Tensile (ksi)	Wt. (lbs/ft ²)	I+ (in ² /ft)	S+ (in ² /ft)	I- (in ² /ft)	S- (in ² /ft)	Metallic Coating	Paint System
24	0.0232	50	65	1.58	0.1148	0.0953	0.1243	0.1174	AZ50	Cool Dura Tech™ 5000 (polyvinylidene fluoride) or Cool Dura Tech™ mx (metallic polyvinylidene)
22	0.0294	50	65	1.99	0.1533	0.1362	0.1645	0.1665	AZ50	
20	0.0354	40	55	2.38	0.1960	0.1930	0.2047	0.2334	G90	

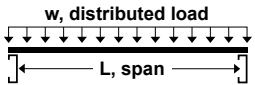
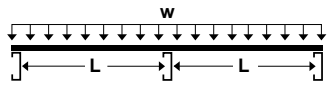
Gauge	Span	Cond.	Allowable Inward Loads (lbs/ft ²) per Span (ft.-in.)						
			2' - 0"	3' - 0"	4' - 0"	5' - 0"	6' - 0"	7' - 0"	8' - 0"
24	Single Span	ASD, W/Ω	476	211	119	76	53	39	30
		L/180	1254	372	157	80	46	29	20
	Double Span	ASD, W/Ω	359	240	140	90	63	47	36
		L/180	3021	895	378	193	112	70	47
	Triple Span	ASD, W/Ω	408	272	171	112	79	58	45
		L/180	2367	701	296	151	88	55	37
22	Single Span	ASD, W/Ω	680	302	170	109	76	55	42
		L/180	1675	496	209	107	62	39	26
	Double Span	ASD, W/Ω	555	335	196	128	89	66	51
		L/180	4034	1195	504	258	149	94	63
	Triple Span	ASD, W/Ω	631	404	239	158	111	82	63
		L/180	3160	936	395	202	117	74	49
20	Single Span	ASD, W/Ω	770	342	193	123	86	63	48
		L/180	2141	635	268	137	79	50	33
	Double Span	ASD, W/Ω	624	365	216	142	99	74	57
		L/180	>5k	1528	645	330	191	120	81
	Triple Span	ASD, W/Ω	709	436	262	174	122	91	71
		L/180	4041	1197	505	259	150	94	63

Outward Load Capacity

Panel / Gauge	Maximum* Negative (Outward) Uniform Load Capacity (lbs/ft ²) / Span (ft. - in.)						
	2' - 0"	2' - 6"	3' - 0"	3' - 6"	4' - 0"	4' - 6"	5' - 0"
1.2FX10-12d, 20-24ga (DIRECT FASTENED)	100	93	87	80	73	67	60
1.2FX20/30/40-12d, 20-24ga (DIRECT FASTENED)	89	81	74	67	60	53	45
1.2FX10/20/30/40-12c, 24ga (CLIP ATTACHED)	87	78	69	60	51	42	33
1.2FX10/20/30/40-12c, 20-22ga (CLIP ATTACHED)	86	81	76	72	67	62	57

* Maximum allowable outward load capacities are shown and dependent upon fastener-to-substrate capacities. Refer to IAPMO-UES report #ER-0309 for specific product system capacities.

Table Notes

Inward Loads	Single Span		NOTES: The values W/Ω (ASD) are based on allowable panel strength. L/180 values based on allowable service load deflections. The moments of inertia, I_+ and I_- , presented for determining deflection are: $(2I_{\text{Effective}} + I_{\text{Gross}})/3$ Values are based on AISI S100-16/S1-18. Specifications subject to change without notice.
	Double Span		
	Triple Span	