



Tolerances for AP Armaflex® Black Lap Seal*

3/8" Walls												
Item	Nom Pipe Size	Pipe OD	Insulation ID			Insulation Wall			Calculated OD			R Value
			Min	Targ	Max	Min	Targ	Max	Min	Targ	Max	
IPBST05838	1/2" Copper	0.625	0.710	0.750	0.790	0.300	0.363	0.425	1.310	1.475	1.640	2.6
IPBST03438	5/8" Copper	0.750	0.810	0.860	0.910	0.300	0.363	0.425	1.410	1.585	1.760	2.4
IPBST07838	3/4" Copper	0.875	0.940	0.995	1.050	0.300	0.363	0.425	1.540	1.720	1.900	2.4
IPBST11838	1" Copper	1.125	1.200	1.255	1.310	0.300	0.363	0.425	1.800	1.980	2.160	2.3
IPBST13838	1-1/4" Copper	1.375	1.450	1.510	1.570	0.300	0.363	0.425	2.050	2.235	2.420	2.2
IPBST15838	1-1/2" Copper	1.625	1.710	1.770	1.830	0.350	0.413	0.475	2.410	2.595	2.780	2.5
IPBST11038	1 1/2" IPS	1.900	1.970	2.030	2.090	0.350	0.413	0.475	2.670	2.855	3.040	2.4
IPBST21838	2" Copper	2.125	2.220	2.280	2.340	0.350	0.413	0.475	2.920	3.105	3.290	2.4
1/2" Walls												
Item	Nom Pipe Size	Pipe OD	Insulation ID			Insulation Wall			Calculated OD			R Value
			Min	Targ	Max	Min	Targ	Max	Min	Targ	Max	
IPBST03812	1/4" Copper	0.375	0.420	0.460	0.500	0.360	0.423	0.485	1.140	1.305	1.470	3.3
IPBST01212	3/8" Copper	0.500	0.560	0.600	0.640	0.380	0.443	0.505	1.320	1.485	1.650	3.3
IPBST05812	1/2" Copper	0.625	0.710	0.750	0.790	0.400	0.463	0.525	1.510	1.675	1.840	3.4
IPBST03412	5/8" Copper	0.750	0.810	0.860	0.910	0.420	0.483	0.545	1.650	1.825	2.000	3.3
IPBST07812	3/4" Copper	0.875	0.940	0.995	1.050	0.430	0.493	0.555	1.800	1.980	2.160	3.3
IPBST11812	1" Copper	1.125	1.200	1.255	1.310	0.450	0.513	0.575	2.100	2.280	2.460	3.3
IPBST13812	1-1/4" Copper	1.375	1.450	1.510	1.570	0.460	0.523	0.585	2.370	2.555	2.740	3.2
IPBST15812	1-1/2" Copper	1.625	1.710	1.770	1.830	0.470	0.533	0.595	2.650	2.835	3.020	3.2
IPBST11012	1 1/2" IPS	1.900	1.970	2.030	2.090	0.480	0.543	0.605	2.930	3.115	3.300	3.1
IPBST21812	2" Copper	2.125	2.220	2.280	2.340	0.490	0.553	0.615	3.200	3.385	3.570	3.2
IPBST20012	2" IPS	2.375	2.470	2.540	2.610	0.500	0.563	0.625	3.470	3.665	3.860	3.2
IPBST25812	2-1/2" Copper	2.625	2.720	2.800	2.880	0.500	0.563	0.625	3.720	3.925	4.130	3.2
IPBST21012	2-1/2" IPS	2.875	2.980	3.060	3.140	0.500	0.563	0.625	3.980	4.185	4.390	3.2
IPBST31812	3" Copper	3.125	3.230	3.310	3.390	0.500	0.563	0.625	4.230	4.435	4.640	3.2
IPBST30012	3" IPS	3.500	3.610	3.685	3.760	0.500	0.563	0.625	4.610	4.810	5.010	3.1
IPBST35812	3-1/2" Copper	3.625	3.740	3.810	3.880	0.500	0.563	0.625	4.740	4.935	5.130	3.1
IPBST41812	4" Copper	4.125	4.250	4.335	4.420	0.500	0.563	0.625	5.250	5.460	5.670	3.1
IPBST40012	4" IPS	4.500	4.600	4.690	4.780	0.500	0.563	0.625	5.600	5.815	6.030	3.0
3/4" Walls												
Item	Nom Pipe Size	Pipe OD	Insulation ID			Insulation Wall			Calculated OD			R Value
			Min	Targ	Max	Min	Targ	Max	Min	Targ	Max	
IPBST03834	1/4" Copper	0.375	0.420	0.460	0.500	0.620	0.683	0.745	1.660	1.825	1.990	5.9
IPBST01234	3/8" Copper	0.500	0.560	0.600	0.640	0.620	0.683	0.745	1.800	1.965	2.130	5.5
IPBST05834	1/2" Copper	0.625	0.710	0.750	0.790	0.660	0.723	0.785	2.030	2.195	2.360	5.6
IPBST03434	5/8" Copper	0.750	0.810	0.860	0.910	0.680	0.743	0.805	2.170	2.345	2.520	5.5
IPBST07834	3/4" Copper	0.875	0.940	0.995	1.050	0.700	0.763	0.825	2.340	2.520	2.700	5.4
IPBST11834	1" Copper	1.125	1.200	1.255	1.310	0.740	0.803	0.865	2.680	2.860	3.040	5.4
IPBST13834	1-1/4" Copper	1.375	1.450	1.510	1.570	0.750	0.813	0.875	2.950	3.135	3.320	5.3
IPBST15834	1-1/2" Copper	1.625	1.710	1.770	1.830	0.750	0.813	0.875	3.210	3.395	3.580	5.1
IPBST11034	1 1/2" IPS	1.900	1.970	2.030	2.090	0.750	0.813	0.875	3.470	3.655	3.840	4.9
IPBST21834	2" Copper	2.125	2.220	2.280	2.340	0.750	0.813	0.875	3.720	3.905	4.090	4.8
IPBST20034	2" IPS	2.375	2.580	2.680	2.780	0.750	0.813	0.875	4.080	4.305	4.530	5.2
IPBST25834	2-1/2" Copper	2.625	2.720	2.800	2.880	0.750	0.813	0.875	4.220	4.425	4.630	4.7
IPBST21034	2-1/2" IPS	2.875	3.080	3.180	3.280	0.750	0.813	0.875	4.580	4.805	5.030	5.0
IPBST31834	3" Copper	3.125	3.230	3.310	3.390	0.750	0.813	0.875	4.730	4.935	5.140	4.6
IPBST30034	3" IPS	3.500	3.700	3.800	3.900	0.750	0.813	0.875	5.200	5.425	5.650	4.9
IPBST35834	3-1/2" Copper	3.625	3.740	3.810	3.880	0.750	0.813	0.875	5.240	5.435	5.630	4.5
IPBST41834	4" Copper	4.125	4.250	4.335	4.420	0.750	0.813	0.875	5.750	5.960	6.170	4.5
IPBST40034	4" IPS	4.500	4.750	4.850	4.950	0.750	0.813	0.875	6.250	6.475	6.700	4.8

*These specifications are based on the measurement methods employed by Armacell. Other methods may not result in the same values and cannot be used to determine if the product is within the given tolerance.

1" Walls												
Item	Nom Pipe Size	Pipe OD	Insulation ID			Insulation Wall			Calculated OD			R Value
			Min	Targ	Max	Min	Targ	Max	Min	Targ	Max	
IPBST03810	1/4" Copper	0.375	0.420	0.460	0.500	0.750	0.813	0.875	1.920	2.085	2.250	7.3
IPBST01210	3/8" Copper	0.500	0.560	0.600	0.640	0.790	0.853	0.915	2.140	2.305	2.470	7.2
IPBST05810	1/2" Copper	0.625	0.710	0.750	0.790	0.830	0.893	0.955	2.370	2.535	2.700	7.2
IPBST03410	5/8" Copper	0.750	0.810	0.860	0.910	0.850	0.913	0.975	2.510	2.685	2.860	7.0
IPBST07810	3/4" Copper	0.875	0.940	0.995	1.050	0.880	0.943	1.005	2.700	2.880	3.060	7.0
IPBST11810	1" Copper	1.125	1.200	1.255	1.310	0.920	1.013	1.105	3.040	3.280	3.520	7.2
IPBST13810	1-1/4" Copper	1.375	1.450	1.510	1.570	0.970	1.063	1.155	3.390	3.635	3.880	7.2
IPBST15810	1-1/2" Copper	1.625	1.710	1.770	1.830	1.000	1.093	1.185	3.710	3.955	4.200	7.2
IPBST11010	1 1/2" IPS	1.900	1.970	2.030	2.090	1.000	1.093	1.185	3.970	4.215	4.460	6.9
IPBST21810	2" Copper	2.125	2.220	2.280	2.340	1.000	1.093	1.185	4.220	4.465	4.710	6.8
IPBST20010	2" IPS	2.375	2.580	2.680	2.780	1.000	1.093	1.185	4.580	4.865	5.150	7.1
IPBST25810	2-1/2" Copper	2.625	2.720	2.800	2.880	1.000	1.093	1.185	4.720	4.985	5.250	6.5
IPBST21010	2-1/2" IPS	2.875	3.080	3.180	3.280	1.000	1.093	1.185	5.080	5.365	5.650	6.8
IPBST31810	3" Copper	3.125	3.230	3.310	3.390	1.000	1.093	1.185	5.230	5.495	5.760	6.3
IPBST30010	3" IPS	3.500	3.700	3.800	3.900	1.000	1.093	1.185	5.700	5.985	6.270	6.6
IPBST35810	3-1/2" Copper	3.625	3.740	3.810	3.880	1.000	1.093	1.185	5.740	5.995	6.250	6.2
IPBST41810	4" Copper	4.125	4.250	4.335	4.420	1.000	1.093	1.185	6.250	6.520	6.790	6.1
IPBST40010	4" IPS	4.500	4.750	4.850	4.950	1.000	1.093	1.185	6.750	7.035	7.320	6.4
IPBST50010	5" IPS	5.563	5.810	5.910	6.010	1.000	1.093	1.185	7.810	8.095	8.380	6.2
IPBST60010	6" IPS	6.625	6.880	6.980	7.080	1.000	1.093	1.185	8.880	9.165	9.450	6.1
1-1/2" Walls												
Item	Nom Pipe Size	Pipe OD	Insulation ID			Insulation Wall			Calculated OD			R Value
			Min	Targ	Max	Min	Targ	Max	Min	Targ	Max	
IPBST03815	1/4" Copper	0.375	0.420	0.460	0.500	1.408	1.500	1.592	3.236	3.460	3.684	13.7
IPBST01215	3/8" Copper	0.500	0.560	0.600	0.640	1.408	1.500	1.592	3.376	3.600	3.824	12.7
IPBST05815	1/2" Copper	0.625	0.710	0.750	0.790	1.408	1.500	1.592	3.526	3.750	3.974	12.0
IPBST03415	5/8" Copper	0.750	0.810	0.860	0.910	1.408	1.500	1.592	3.626	3.860	4.094	11.3
IPBST07815	3/4" Copper	0.875	0.940	0.995	1.050	1.408	1.500	1.592	3.756	3.995	4.234	10.8
IPBST11815	1" Copper	1.125	1.200	1.255	1.310	1.408	1.500	1.592	4.016	4.255	4.494	10.1
IPBST13815	1-1/4" Copper	1.375	1.450	1.510	1.570	1.408	1.500	1.592	4.266	4.510	4.754	9.6
IPBST15815	1-1/2" Copper	1.625	1.710	1.770	1.830	1.408	1.500	1.592	4.526	4.770	5.014	9.2
IPBST11015	1 1/2" IPS	1.900	1.970	2.030	2.090	1.408	1.500	1.592	4.786	5.030	5.274	8.7
IPBST21815	2" Copper	2.125	2.220	2.280	2.340	1.408	1.500	1.592	5.036	5.280	5.524	8.6
IPBST20015	2" IPS	2.375	2.580	2.680	2.780	1.408	1.500	1.592	5.396	5.680	5.964	8.8
IPBST25815	2-1/2" Copper	2.625	2.720	2.800	2.880	1.408	1.500	1.592	5.536	5.800	6.064	8.2
IPBST21015	2-1/2" IPS	2.875	3.080	3.180	3.280	1.408	1.500	1.592	5.896	6.180	6.464	8.4
IPBST31815	3" Copper	3.125	3.230	3.310	3.390	1.408	1.500	1.592	6.046	6.310	6.574	7.9
IPBST30015	3" IPS	3.500	3.700	3.800	3.900	1.408	1.500	1.592	6.516	6.800	7.084	8.1
IPBST35815	3-1/2" Copper	3.625	3.740	3.810	3.880	1.408	1.500	1.592	6.556	6.810	7.064	7.7
IPBST41815	4" Copper	4.125	4.250	4.335	4.420	1.408	1.500	1.592	7.066	7.335	7.604	7.5
IPBST40015	4" IPS	4.500	4.750	4.850	4.950	1.408	1.500	1.592	7.566	7.850	8.134	7.8
IPBST50015	5" IPS	5.563	5.810	5.910	6.010	1.408	1.500	1.592	8.626	8.910	9.194	7.5
IPBST60015	6" IPS	6.625	6.880	6.980	7.080	1.408	1.500	1.592	9.696	9.980	10.264	7.3
2" Walls												
Item	Nom Pipe Size	Pipe OD	Insulation ID			Insulation Wall			Calculated OD			R Value
			Min	Targ	Max	Min	Targ	Max	Min	Targ	Max	
IPBST03820	1/4" Copper	0.375	0.420	0.460	0.500	1.900	2.000	2.100	4.220	4.460	4.700	19.7
IPBST01220	3/8" Copper	0.500	0.560	0.600	0.640	1.900	2.000	2.100	4.360	4.600	4.840	18.2
IPBST05820	1/2" Copper	0.625	0.710	0.750	0.790	1.900	2.000	2.100	4.510	4.750	4.990	17.2
IPBST03420	5/8" Copper	0.750	0.810	0.860	0.910	1.900	2.000	2.100	4.610	4.860	5.110	16.2
IPBST07820	3/4" Copper	0.875	0.940	0.995	1.050	1.900	2.000	2.100	4.740	4.995	5.250	15.5
IPBST11820	1" Copper	1.125	1.200	1.255	1.310	1.900	2.000	2.100	5.000	5.255	5.510	14.5

*These specifications are based on the measurement methods employed by Armacell. Other methods may not result in the same values and cannot be used to determine if the product is within the given tolerance.

Updated2/17/2017

IPBST13820	1-1/4" Copper	1.375	1.450	1.510	1.570	1.900	2.000	2.100	5.250	5.510	5.770	13.7
IPBST15820	1-1/2" Copper	1.625	1.710	1.770	1.830	1.900	2.000	2.100	5.510	5.770	6.030	13.1
IPBST11020	1 1/2" IPS	1.900	1.970	2.030	2.090	1.900	2.000	2.100	5.770	6.030	6.290	12.4
IPBST21820	2" Copper	2.125	2.220	2.280	2.340	1.900	2.000	2.100	6.020	6.280	6.540	12.2
IPBST20020	2" IPS	2.375	2.580	2.680	2.780	1.900	2.000	2.100	6.380	6.680	6.980	12.3
IPBST25820	2-1/2" Copper	2.625	2.720	2.800	2.880	1.900	2.000	2.100	6.520	6.800	7.080	11.6
IPBST21020	2-1/2" IPS	2.875	3.080	3.180	3.280	1.900	2.000	2.100	6.880	7.180	7.480	11.7
IPBST31820	3" Copper	3.125	3.230	3.310	3.390	1.900	2.000	2.100	7.030	7.310	7.590	11.1
IPBST30020	3" IPS	3.500	3.700	3.800	3.900	1.900	2.000	2.100	7.500	7.800	8.100	11.2
IPBST35820	3-1/2" Copper	3.625	3.740	3.810	3.880	1.900	2.000	2.100	7.540	7.810	8.080	10.7
IPBST41820	4" Copper	4.125	4.250	4.335	4.420	1.900	2.000	2.100	8.050	8.335	8.620	10.5
IPBST40020	4" IPS	4.500	4.750	4.850	4.950	1.900	2.000	2.100	8.550	8.850	9.150	10.7
IPBST50020	5" IPS	5.563	5.810	5.910	6.010	1.900	2.000	2.100	9.610	9.910	10.210	10.2
IPBST60020	6" IPS	6.625	6.880	6.980	7.080	1.900	2.000	2.100	10.680	10.980	11.280	9.9

*These specifications are based on the measurement methods employed by Armacell. Other methods may not result in the same values and cannot be used to determine if the product is within the given tolerance.

Updated2/17/2017