

SOFT-SHIELD® 3500

Plated-Fabric Wrapped Foam

Economical EMI Shielding Gaskets for Electronics



Customer Value Proposition:

The SOFT-SHIELD® 3500 fabric over foam (FOF) product family is a group of low-closure force EMI/EMC gaskets. SS3500 offers a low cost/low closure force competitive solution for EMI shielding and electrical grounding in shear and compression.

The SS3500 product family is comprised of conductive nickel plated copper polyester taffeta fabric wrapped around open cell urethan foam. This wrap around technology grounds the gasket from point to point, ultimately eliminating an EMI/EMC gap.

SS3500 typically requires less than 1lb / in (0.175 / mm) closure force, making it effective for low closure force applications. SS3500 takes less than 15% compression set. This is less than most other FOF's on the market resulting in reliable/repeatable shielding performance. SS3500 is an excellent alternative shielding solution to traditional spring finger type products.

The SS3500 product family is one of the most versatile EMI FOF products offered to the market. Depending on mechanical and shielding requirements, the SS3500 can be made with different conductive jackets:

- Nickel-plated copper taffeta
- Nickel-plated copper rip-stop polyester

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New profiles are designed and released to the market on a regular basis. Profiles are engineered to optimize mechanical form, fit and function while optimizing electrical performance. This technical data sheet addresses the most common type FOF Parker Chomerics has to offer to market. Contact Chomerics for any other special design requirements and an updated profile list.

Product Features:

- Low Cost >100(dB) shielding effectiveness 50 MHz to 10 GHz
- Low closure force
- Low contact resistance
- Over 250 profiles available to the market
- Readily available in bulk, cut to length or with cut-outs / features
- RoHS, REACH and UL 94 V-0 Compliant
- Good low compression set properties
- Abrasion / sheer resistant conductive jackets

Typical Applications:

- Server Faceplates and blade cards
- Electronic enclosures
- Consumer electronics
- Door seals
- EMI Window / vent seals
- Grounding Applications

SOFT-SHIELD® 3500 - Available Profiles

Contact Chomerics for any other special requirements and an updated profile list.



Table 1 - Rectangle Profiles

Profile	Height inches (mm)	Width inches (mm)
3042	0.015 [0.38]	0.472 [11.9]
3268	0.020 [0.51]	0.157 [3.99]
3216	0.020 [0.51]	0.197 [5.00]
3232	0.020 [0.51]	0.394 [10.01]
3273	0.020 [0.51]	0.500 [12.70]
3442	0.020 [0.51]	0.925 [23.50]
3211	0.039 [0.99]	0.118 [3.00]
3214	0.039 [0.99]	0.157 [3.99]
3217	0.039 [0.99]	0.197 [5.00]
3224	0.039 [0.99]	0.276 [7.01]
3230	0.039 [0.99]	0.315 [8.00]
3233	0.039 [0.99]	0.394 [10.01]
3392	0.039 [0.99]	0.394 [10.01]
3420	0.039 [0.99]	0.709 [18.01]
3455	0.039 [0.99]	0.925 [23.50]
3291	0.039 [0.99]	1.142 [29.01]
9184	0.039 [0.99]	1.142 [29.01]
3234	0.047 [1.19]	0.394 [10.01]
3434	0.050 [1.27]	1.320 [33.53]
3370	0.059 [1.50]	0.157 [3.99]
3219	0.059 [1.50]	0.197 [5.00]
3241	0.059 [1.50]	0.394 [10.01]
3418	0.060 [1.52]	0.118 [3.00]
3226	0.060 [1.52]	0.275 [6.99]
3389	0.060 [1.52]	0.394 [10.01]
3426	0.060 [1.52]	0.394 [10.01]
3471	0.060 [1.52]	0.670 [17.02]
3101	0.078 [1.98]	0.118 [3.00]
3104	0.078 [1.98]	0.157 [3.99]
3120	0.078 [1.98]	0.236 [5.99]
3136	0.078 [1.98]	0.315 [8.00]
3258	0.078 [1.98]	1.378 [35.00]
3109	0.079 [2.01]	0.197 [5.00]
3133	0.079 [2.01]	0.276 [7.01]



Table 1 - Rectangle Profiles (continued)

Profile	Height inches (mm)	Width inches (mm)
3151	0.079 [2.01]	0.394 [10.01]
3164	0.079 [2.01]	0.472 [11.99]
3187	0.079 [2.01]	0.591 [15.01]
3248	0.079 [2.01]	0.827 [21.01]
3402	0.079 [2.01]	0.984 [24.99]
3435	0.090 [2.29]	0.100 [2.54]
3110	0.098 [2.49]	0.197 [5.00]
3335	0.098 [2.49]	0.512 [13.00]
3249	0.098 [2.49]	0.826 [20.98]
3463	0.100 [2.54]	0.375 [9.53]
3102	0.118 [3.00]	0.118 [3.00]
9085	0.118 [3.00]	0.118 [3.00]
3106	0.118 [3.00]	0.157 [3.99]
3153	0.118 [3.00]	0.394 [10.01]
3424	0.120 [3.05]	1.610 [40.89]
3148	0.125 [3.18]	0.375 [9.53]
3173	0.125 [3.18]	0.500 [12.70]
3421	0.125 [3.18]	1.000 [25.40]
3439	0.125 [3.18]	1.850 [46.99]
3472	0.125 [3.18]	2.000 [50.80]
3108	0.126 [3.20]	0.189 [4.80]
3128	0.126 [3.20]	0.252 [6.40]
9022	0.126 [3.20]	0.252 [6.40]
3195	0.126 [3.20]	0.626 [15.90]
3557	0.134 [3.40]	0.689 [17.50]
3145	0.137 [3.48]	0.354 [8.99]
3298	0.138 [3.51]	0.197 [5.00]
3469	0.138 [3.51]	0.826 [20.98]
3336	0.138 [3.51]	0.512 [13.00]
3107	0.157 [3.99]	0.157 [3.99]
3129	0.157 [3.99]	0.250 [6.35]
3138	0.157 [3.99]	0.315 [8.00]
3318	0.157 [3.99]	0.354 [8.99]
3154	0.157 [3.99]	0.394 [10.01]

SOFT-SHIELD® 3500 - Available Profiles

Contact Chomerics for any other special requirements and an updated profile list.



Table 1 - Rectangle Profiles (continued)

Profile	Height inches (mm)	Width inches (mm)
3423	0.160 [4.06]	0.577 [14.66]
3113	0.197 [5.00]	0.197 [5.00]
3139	0.197 [5.00]	0.315 [8.00]
3156	0.197 [5.00]	0.394 [10.01]
3190	0.197 [5.00]	0.591 [15.01]
3126	0.236 [5.99]	0.236 [5.99]
9111	0.236 [5.99]	0.236 [5.99]
3149	0.250 [6.35]	0.375 [9.53]
3174	0.250 [6.35]	0.500 [12.70]
3270	0.251 [6.38]	0.251 [6.38]
3338	0.255 [6.48]	0.512 [13.00]
3572	0.255 [6.48]	1.000 [25.40]
3300	0.276 [7.01]	0.276 [7.01]
3323	0.276 [7.01]	0.394 [10.01]
9159	0.276 [7.01]	0.276 [7.01]
3339	0.276 [7.01]	0.512 [13.00]
3159	0.315 [8.00]	0.394 [10.01]
3299	0.370 [9.40]	0.250 [6.35]
3150	0.375 [9.53]	0.375 [9.53]
3175	0.375 [9.53]	0.500 [12.70]
3313	0.394 [10.01]	0.315 [8.00]
3161	0.394 [10.01]	0.394 [10.01]
3358	0.394 [10.01]	0.787 [19.99]



Table 1 - Rectangle Profiles (continued)

Profile	Height inches (mm)	Width inches (mm)
3342	0.413 [10.49]	0.512 [13.00]
3314	0.472 [11.99]	0.315 [8.00]
3346	0.472 [11.99]	0.590 [14.99]
3176	0.500 [12.70]	0.500 [12.70]
9118	0.500 [12.70]	1.181 [30.00]
3162	0.512 [13.00]	0.394 [10.01]
3529	0.590 [14.99]	0.394 [10.01]
3532	0.669 [16.99]	0.500 [12.70]
3438	0.740 [18.80]	0.510 [12.95]
9011	0.740 [18.80]	0.510 [12.95]
4063	0.748 [19.00]	0.629 [15.98]
3461	0.750 [19.05]	0.250 [6.35]
3527	0.787 [19.99]	0.750 [19.05]
3360	0.787 [19.99]	0.787 [19.99]
3239	0.826 [20.98]	0.314 [7.98]
3235	0.866 [22.00]	0.375 [9.53]
3223	0.866 [22.00]	0.787 [19.99]
3103	0.905 [22.99]	0.500 [12.70]
9009	1.000 [25.40]	0.750 [19.05]
3228	1.023 [25.98]	0.393 [9.98]
3544	1.140 [28.96]	1.180 [29.97]
3486	1.375 [34.93]	0.750 [19.05]
3142	1.575 [40.01]	0.750 [19.05]



Table 2 - D-Shape Profiles

Profile	Height inches (mm)	Width inches (mm)
3607	0.060 [1.52]	0.150 [3.81]
3664	0.070 [1.78]	0.180 [4.57]
3674	0.075 [1.91]	0.150 [3.81]
3610	0.079 [2.01]	0.197 [5.00]
3628	0.079 [2.01]	0.394 [10.01]
3601	0.090 [2.29]	0.091 [2.31]
3648	0.090 [2.29]	0.150 [3.81]
3671	0.100 [2.54]	0.250 [6.35]
3669	0.110 [2.79]	0.225 [5.72]

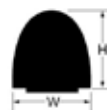


Table 2 - D-Shape Profiles (continued)

Profile	Height inches (mm)	Width inches (mm)
3608	0.118 [3.00]	0.150 [3.81]
3622	0.118 [3.00]	0.354 [8.99]
3629	0.118 [3.00]	0.394 [10.01]
3651	0.120 [3.05]	0.250 [6.35]
3624	0.125 [3.18]	0.375 [9.53]
9101	0.125 [3.18]	0.375 [9.53]
3682	0.130 [3.30]	0.188 [4.78]
3616	0.134 [3.40]	0.256 [6.50]

SOFT-SHIELD® 3500 - Available Profiles

Contact Chomerics for any other special requirements and an updated profile list.



Table 2 - D-Shape Profiles (continued)

Profile	Height inches (mm)	Width inches (mm)
3684	0.138 [3.51]	0.394 [10.01]
9106	0.138 [3.51]	0.394 [10.01]
3650	0.142 [3.61]	0.252 [6.40]
3668	0.150 [3.81]	0.354 [8.99]
3685	0.157 [3.99]	0.500 [12.70]
9023	0.157 [3.99]	0.150 [3.81]
3649	0.157 [3.99]	0.236 [5.99]
3666	0.157 [3.99]	0.150 [3.81]
3631	0.177 [4.50]	0.393 [9.98]
3620	0.189 [4.80]	0.299 [7.59]
3611	0.196 [4.98]	0.196 [4.98]
3617	0.197 [5.00]	0.256 [6.50]
3626	0.250 [6.35]	0.375 [9.53]
3662	0.250 [6.35]	0.250 [6.35]
3643	0.375 [9.53]	0.500 [12.70]
3694	0.500 [12.70]	0.500 [12.70]



Table 5 - Stealth Profiles

Profile	Height inches (mm)	Width inches (mm)
3902	0.070 [1.78]	0.564 [14.33]
3856	0.080 [2.03]	0.300 [7.62]
3844	0.080 [2.03]	0.500 [12.70]
3845	0.080 [2.03]	0.675 [17.15]
3840	0.100 [2.54]	0.300 [7.62]
3823	0.100 [2.54]	0.394 [10.01]
3922	0.110 [2.79]	0.620 [15.75]
3828	0.120 [3.05]	0.320 [8.13]
3890	0.120 [3.05]	0.400 [10.16]
3926	0.122 [3.10]	0.255 [6.48]
3850	0.134 [3.40]	0.625 [15.88]
3839	0.140 [3.56]	0.500 [12.70]
3891	0.157 [3.99]	0.500 [12.70]
3842	0.197 [5.00]	0.675 [17.15]
3894	0.215 [5.46]	0.500 [12.70]
3995	0.285 [7.24]	0.650 [16.51]
3913	0.350 [8.89]	0.629 [15.98]



Table 3 - C-Fold Profiles

Profile	Height inches (mm)	Width inches (mm)
3848	0.236 [5.99]	0.236 [5.99]
3803	0.315 [8.00]	0.315 [8.00]
3843	0.315 [8.00]	0.315 [8.00]
3806	0.385 [9.78]	0.421 [10.69]
3836	0.395 [10.03]	0.430 [10.92]
3834	0.400 [10.16]	0.430 [10.92]
3830	0.465 [11.81]	0.421 [10.69]
3901	0.465 [11.81]	0.421 [10.69]
3822	0.465 [11.81]	0.421 [10.69]
3807	0.675 [17.15]	0.580 [14.73]

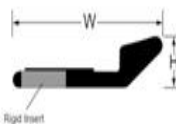


Table 6 - Knife-Edge Profiles

Profile	Height inches (mm)	Width inches (mm)
3941	0.105 [2.67]	0.320 [8.13]
3826	0.106 [2.69]	0.445 [11.30]
3837	0.106 [2.69]	0.445 [11.30]
3893	0.106 [2.69]	0.320 [8.13]
3811	0.252 [6.40]	0.751 [19.08]



Table 4 - P-Shape Profiles

Profile	Height inches (mm)	Width inches (mm)
3816	0.130 [3.30]	0.520 [13.21]
3898	0.145 [3.68]	0.520 [13.21]
3895	0.165 [4.19]	0.520 [13.21]
3877	0.200 [5.08]	0.520 [13.21]

Table 7 - Other Profiles

Profile	Height inches (mm)	Width inches (mm)	Profile Shape
9088	0.118 [3.00]	1.575 [40.01]	Spec.
3914	0.152 [3.86]	0.250 [6.35]	"T"
3849	0.394 [10.01]	0.590 [14.99]	"L"
9005	0.157 [3.99]	0.257 [6.53]	"L"
3860	0.181 [4.60]	0.244 [6.20]	"T"
3962	0.157 [3.99]	0.301 [7.65]	Clip
3985	0.110 [2.79]	0.283 [7.19]	Clip

SOFT-SHIELD® 3500 - Available Profiles

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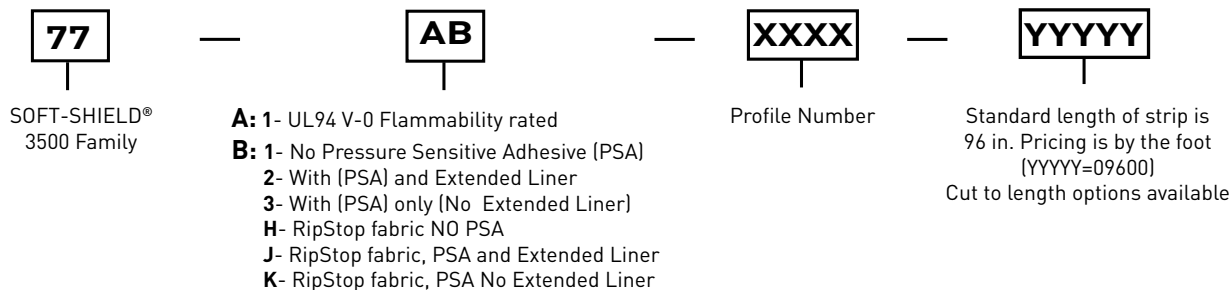
Table 8 - Typical Properties

SOFT-SHIELD® 3500 Typical Properties	Value	Test Method
Shielding Effectiveness 20MHz to 10 GHZ	> 100 (dB)	CHO-TM-TP08
35% Compression Deflection lb/in (N/mm), [0.125 x 0.375 in. gasket]	< 1 (<0.175)	ASTM C165
Compression Set	<15%	ASTM D3574
Operating Temperature	-40° C to 70° C [-40° F to 158° F]	--
Acrylic Adhesive Peel Strength, 90 lb/inch (N/mm) [Min. value]	4 (0.7)	ASTM D1000
Recommended % Deflection Range	20 - 60%	--
Flammability	V-0	UL 94

Table 9 - Tolerances

Dimensional Tolerances	
Minimum Wall Width inches (mm) 0.060 (1.52)	
Cut Length inches (cm) up to 5.00 (up to 12.7) 5.01 to 10.00 (12.7 to 25.4) 10.01 to 15.00 (25.4 to 38.1) 15.01 to 20.00 (38.1 to 50.8) 20.01 to 30.00 (50.8 to 76.2) 30.01 to 48.00 (76.2 to 121.92) 48.01 to 95.00 (121.92 to 241.3) over 95.00 (over 241.3)	inches (mm) ±0.030 (0.76) ±0.060 (1.52) ±0.070 (1.78) ±0.080 (2.03) ±0.100 (2.54) ±0.200 (5.08) ±0.250 (6.35) ±0.500 (12.7)
Die-Cut inches (mm) up to 10.00 (up to 254) 10.01 to 20.00 (254.3 to 508) 20.01 to 30.00 (508.3 to 762) over 30.00 (over 762)	inches (mm) ±0.020 (0.51) ±0.030 (0.76) ±0.040 (1.02) ±0.060 (1.52)

ORDERING INFORMATION:



Example Part Number: 77-1K-3108-01400 (Description: SOFT-SHIELD 3500 Rip-Stop, Profile 3108 and 14 inches long)

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