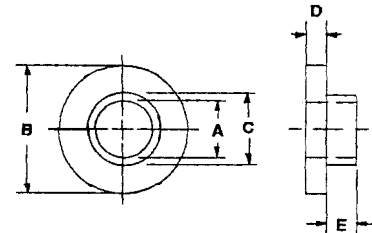


MOLDED NYLON SHOULDER WASHERS

*Available in other materials. See materials list in index.
Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Conversion note: 1 inch = 25.4 mm 1 mm = 0.03937 inch
 Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-1000	.045	.181	.120	.047	.075	-43	.115	.200	.140	.031	.031
-1005	.055	.125	.080	.030	.060	-44	.115	.203	.140	.047	.031
-1	.061	.105	.084	.047	.047	-45	.115	.216	.135	.047	.031
-2	.063	.187	.119	.031	.078	-46	.115	.218	.135	.047	.031
.3	.063	.187	.119	.031	.187	-47	.115	.234	.147	.047	.047
-4	.075	.197	.118	.031	.281	-48	.115	.235	.137	.047	.031
-7	.080	.500	.305	.031	.047	-49	.115	.235	.140	.047	.094
-7000	.085	.182	.125	.078	.031	-50	.115	.235	.145	.047	.094
-8	.085	.182	.131	.062	.031	-51	.115	.235	.145	.047	.125
-10	.089	.187	.119	.031	.016	-52	.115	.235	.145	.047	.250
-1010	.090	.187	.131	.030	.030	-53	.115	.240	.139	.047	.031
-1015	.091	.312	.126	.063	.062	-54	.115	.242	.140	.047	.109
-11	.093	.195	.120	.031	.062	-55	.115	.242	.140	.047	.125
-12	.093	.200	.120	.031	.062	-56	.115	.250	.143	.031	.062
-13	.093	.205	.125	.031	.078	-57	.115	.250	.145	.047	.109
-14	.093	.205	.125	.031	.109	-58	.115	.250	.145	.047	.140
-15	.093	.205	.125	.031	.187	-59	.115	.250	.145	.047	.171
-16	.093	.228	.122	.031	.025	-590	.115	.250	.145	.047	.296
-1600	.093	.250	.122	.031	.031	-60	.115	.250	.150	.171	.218
-17	.093	.281	.158	.094	.125	-61	.115	.250	.156	.047	.047
-1700	.093	.375	.187	.062	.031	-62	.115	.312	.149	.062	.062
-18	.093	.289	.215	.062	.062	-63	.115	.312	.149	.062	.094
-19	.095	.189	.119	.062	.031	-64	.115	.312	.187	.062	.016
-20	.095	.250	.187	.047	.672	-65	.115	.315	.150	.062	.031
-21	.095	.260	.154	.016	.016	-66	.115	.368	.146	.078	.203
-22	.097	.312	.160	.047	.016	-67	.115	.370	.145	.078	.203
-23	.098	.240	.150	.031	.031	-71	.116	.200	.135	.078	.031
-24	.100	.250	.114	.047	.031	-710	.116	.210	.143	.042	.033
-25	.100	.250	.114	.047	.094	-712	.116	.239	.139	.020	.050
-26	.100	.228	.138	.047	.031	-714	.116	.250	.150	.030	.020
-27	.102	.250	.169	.031	.062	-680	.116	.250	.185	.031	.047
-28	.109	.200	.138	.031	.047	-72	.116	.250	.150	.031	.016
-29	.110	.235	.135	.047	.156	-73	.116	.250	.185	.031	.047
-30	.111	.250	.124	.047	.016	-74	.116	.250	.185	.062	.047
-34	.112	.350	.300	.016	.171	-75	.116	.312	.185	.031	.047
-37	.113	.250	.143	.047	.047	-76	.116	.316	.158	.047	.094
-38	.114	.240	.135	.062	.047	-77	.116	.375	.193	.078	.156
-39	.114	.240	.138	.062	.047	-78	.116	.378	.194	.078	.156
-390	.114	.312	.150	.045	.100						
-4100	.115	.235	.147	.047	.040						

(continued next page)

Tolerance on all dimensions:
+/- .015.

.045 I.D. to .116 I.D.

MOLDED NYLON SHOULDER WASHERS (continued)

Conversion note: 1 inch = 25.4 mm 1 mm = 0.03937 inch

Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-79	.116	.378	.255	.031	.125	-143	.140	.312	.185	.031	.031
-800	.118	.250	.135	.050	.120	-1430	.140	.312	.187	.035	.027
-82	.118	.250	.139	.047	.125	-1432	.140	.375	.199	.218	.078
-83	.118	.250	.143	.031	.062	-1434	.140	.400	.275	.125	.100
-85	.120	.202	.145	.016	.047	-145	.140	.324	.204	.062	.031
-86	.120	.210	.145	.016	.047	-146	.140	.340	.250	.078	.047
-860	.120	.250	.187	.031	.031	-147	.140	.349	.248	.047	.062
-88	.120	.224	.154	.031	.062	-148	.140	.375	.185	.016	.094
-89	.120	.224	.154	.031	.437	-149	.140	.375	.185	.031	.094
-90	.120	.250	.138	.047	.062	-150	.140	.375	.185	.062	.031
-900	.120	.250	.150	.050	.090	-151	.140	.375	.199	.218	.078
-91	.120	.253	.136	.047	.078	-152	.140	.375	.218	.062	.047
-92	.120	.291	.154	.062	.234	-153	.140	.375	.250	.094	.062
-93	.120	.312	.170	.062	.062	-154	.140	.381	.185	.062	.047
-94	.120	.312	.203	.047	.031	-155	.140	.400	.275	.125	.125
-940	.120	.625	.248	.062	.027	-156	.140	.468	.248	.062	.047
-960	.123	.312	.187	.063	.031	-157	.140	.470	.312	.078	.281
-99	.122	.230	.142	.016	.047	-158	.140	.578	.185	.062	.047
-101	.124	.313	.219	.031	.031	-1580	.140	.625	.219	.062	.025
-1010	.125	.230	.150	.040	.030	-160	.141	.257	.187	.062	.031
-102	.125	.240	.185	.031	.094	-161	.141	.312	.187	.062	.031
-1020	.125	.250	.156	.047	.250	-1610	.141	.320	.182	.050	.065
-1030	.125	.375	.253	.050	.300	-162	.141	.330	.206	.062	.031
-104	.126	.265	.157	.031	.031	-163	.141	.344	.189	.109	.047
-106	.126	.250	.186	.047	.171	-164	.141	.374	.246	.031	.031
-108	.126	.312	.185	.031	.047	-1640	.141	.375	.214	.040	.046
-109	.127	.312	.170	.062	.047	-165	.141	.415	.243	.156	.047
-111	.128	.312	.187	.047	.094	-166	.141	.418	.243	.109	.062
-113	.130	.250	.195	.031	.125	-167	.141	.500	.318	.031	.016
-114	.130	.312	.154	.031	.312	-168	.141	.500	.318	.031	.047
-116	.135	.296	.235	.031	.218	-169	.142	.265	.205	.031	.156
-117	.135	.438	.250	.031	.140	-1690	.142	.265	.205	.118	.156
-118	.136	.313	.219	.031	.031	-170	.143	.313	.175	.031	.031
-119	.136	.375	.195	.047	.109	-171	.144	.312	.189	.030	.060
-120	.136	.375	.248	.062	.094	-172	.144	.312	.234	.047	.062
-121	.138	.293	.218	.047	.187	-173	.144	.312	.234	.047	.125
-122	.138	.375	.240	.062	.109	-1730	.145	.290	.200	.047	.165
-123	.138	.375	.250	.094	.062	-1734	.145	.375	.245	.030	.060
-1230	.138	.500	.240	.062	.109	-174	.145	.375	.250	.062	.062
-124	.139	.250	.186	.031	.031	-175	.145	.385	.240	.062	.031
-125	.139	.310	.183	.062	.016	-176	.145	.500	.275	.094	.047
-134	.140	.250	.187	.062	.031	-177	.146	.328	.218	.047	.047
-136	.140	.252	.186	.031	.031	-1770	.147	.375	.187	.062	.032
-137	.140	.260	.190	.062	.047	-178	.147	.500	.230	.062	.031
-138	.140	.290	.170	.047	.031	-179	.148	.380	.220	.062	.203
-139	.140	.290	.170	.047	.047	-1790	.150	.230	.190	.025	.100
-1390	.140	.290	.170	.047	.125	-1792	.150	.300	.180	.050	.062
-140	.140	.290	.170	.047	.250	-180	.150	.380	.244	.078	.047
-141	.140	.295	.234	.031	.218						
-142	.140	.312	.170	.047	.062						

(continued next page)

Tolerance on all dimensions:
 +/- .015.

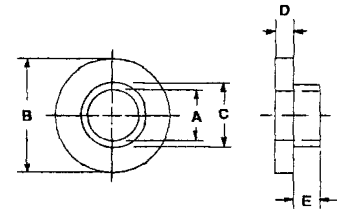
.116 I.D. to .150 I.D.

MOLDED NYLON SHOULDER WASHERS (continued)

*Available in other materials. See materials list in index.
 Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Conversion note: 1 inch = 25.4 mm 1 mm = 0.03937 inch
Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-181	.150	.500	.330	.062	.062	-1792	.150	.300	.180	.050	.062
-182	.150	.750	.250	.062	.250	-180	.150	.380	.244	.078	.047
-183	.152	.750	.359	.094	.062	-2240	.193	.375	.257	.035	.043
-1830	.155	.377	.245	.050	.050	-2250	.193	.440	.312	.094	.043
-185	.156	.312	.250	.062	.187	-2255	.193	.490	.318	.031	.031
-186	.156	.400	.243	.047	.047	-227	.193	.500	.318	.031	.047
-188	.156	.428	.245	.062	.031	-228	.193	.500	.318	.031	.078
-189	.156	.437	.245	.062	.031	-231	.194	.375	.248	.062	.047
-190	.156	.500	.250	.094	.031	-232	.194	.441	.248	.062	.047
-191	.160	.300	.194	.047	.062	-2320	.195	.370	.242	.067	.283
-1920	.163	.312	.229	.046	.050	-234	.195	.490	.310	.250	.187
-193	.165	.500	.250	.078	.016	-2340	.195	.500	.300	.175	.075
-195	.167	.375	.246	.062	.031	-2344	.195	.625	.310	.031	.062
-196	.167	.500	.250	.125	.437	-235	.195	.640	.380	.062	.062
-197	.169	.375	.250	.031	.031	-2360	.196	.380	.254	.065	.055
-1970	.169	.385	.250	.030	.050	-237	.196	.312	.250	.062	.031
-198	.169	.562	.312	.125	.031	-238	.196	.375	.308	.062	.031
-199	.170	.344	.202	.062	.140	-2380	.196	.380	.254	.065	.125
-202	.171	.345	.209	.062	.047	-239	.196	.390	.287	.078	.187
-203	.171	.375	.195	.031	.062	-2390	.196	.432	.303	.031	.140
-2030	.171	.375	.250	.040	.046	-2400	.196	.500	.308	.062	.062
-204	.171	.375	.250	.062	.031	-2404	.197	.375	.250	.062	.213
-205	.171	.510	.250	.062	.406	-2406	.197	.408	.240	.062	.187
-206	.171	.630	.248	.031	.047	-242	.198	.588	.253	.031	.031
-208	.172	.625	.310	.062	.047	-243	.199	.433	.312	.062	.125
-209	.173	.344	.205	.062	.375	-2430	.200	.390	.260	.062	.130
-210	.173	.345	.205	.062	.375	-245	.200	.399	.260	.062	.375
-211	.175	.340	.220	.062	.094	-2450	.200	.490	.281	.062	.094
-2110	.175	.344	.235	.063	.080	-2455	.200	.495	.312	.065	.187
-2112	.175	.513	.312	.063	.187	-247	.200	.500	.312	.062	.312
-214	.176	.493	.376	.094	.406	-248	.201	.375	.280	.062	.125
-215	.184	.312	.234	.031	.187	-249	.201	.437	.281	.047	.047
-216	.187	.375	.245	.031	.140	-250	.201	.635	.425	.140	1.109
-217	.188	.437	.313	.062	.062	-252	.203	.390	.313	.078	.078
-218	.190	.488	.250	.125	.156	-253	.203	.438	.267	.031	.094
-2180	.190	.490	.250	.062	.156	-254	.203	.438	.267	.062	.094
-220	.190	.625	.375	.062	.047	-255	.203	1.000	.298	.062	.062
-2210	.191	.443	.285	.048	.070	-2550	.205	.472	.315	.181	.157
-2212	.191	.513	.312	.062	.375	-256	.205	.620	.312	.047	.047
-223	.192	.375	.245	.047	.047						
-224	.193	.290	.250	.016	.125						

(continued next page)

Tolerance on all dimensions:
 +/- .015.

.150 I.D. to .217 I.D.

MOLDED NYLON SHOULDER WASHERS (continued)

Conversion note: 1 inch = 25.4 mm 1 mm = 0.03937 inch
 Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-257	.208	.615	.315	.047	.047	-302	.260	.425	.377	.062	.171
-2570	.215	.488	.250	.125	.156	-303	.260	.500	.312	.031	.031
-2575	.215	.562	.365	.109	.034	-399	.260	.500	.312	.062	.093
-2580	.217	.413	.244	.118	.138	-3996	.260	.513	.370	.062	.250
-2581	.217	.413	.244	.315	.138	-304	.260	.515	.312	.062	.140
-2584	.219	.750	.500	.031	.031	-305	.260	.550	.305	.078	.047
-259	.220	.375	.260	.031	.093	-306	.260	.555	.300	.078	.047
-260	.220	.408	.240	.062	.187	-307	.260	.562	.300	.047	.047
-2610	.221	.394	.256	.039	.126	-308	.260	.562	.375	.094	.062
-261	.225	.437	.282	.062	.375	-309	.260	.625	.375	.125	.812
-2610	.227	.359	.300	.060	.046	-310	.260	.625	.400	.125	.750
-262	.230	.395	.299	.078	.109	-311	.260	.630	.327	.062	.125
-263	.230	.450	.310	.016	.047	-313	.260	.750	.385	.140	.687
-2630	.234	.500	.282	.031	.094	-3130	.260	1.010	.600	.160	.650
-264	.234	.745	.282	.031	.187	-3132	.263	.625	.379	.058	.210
-2640	.236	.355	.314	.020	.177	-3134	.263	.687	.348	.046	.334
-2645	.240	.483	.315	.059	.157	-3136	.263	.687	.359	.375	.375
-265	.247	.550	.380	.062	.468	-314	.265	.492	.318	.031	.078
-266	.248	.551	.380	.062	.250	-3140	.265	.750	.375	.125	.094
-267	.250	.425	.310	.062	.062	-315	.266	.697	.359	.062	.125
-268	.250	.500	.375	.062	.437	-316	.266	.740	.371	.094	.125
-269	.250	.600	.370	.125	.125	-317	.266	.740	.375	.094	.343
-271	.250	.734	.488	.125	.062	-318	.266	.750	.380	.094	.078
-2720	.250	.750	.500	.086	.100	-319	.266	.750	.380	.094	.218
-2722	.250	.875	.620	.125	.375	-3190	.267	.525	.370	.063	.500
-276	.252	.500	.312	.031	.031	-320	.270	.720	.485	.062	.156
-277	.252	.500	.312	.062	.031	-321	.270	2.111	.603	.125	.703
-2770	.253	.375	.312	.062	.031	-3210	.285	.500	.375	.125	.125
-279	.253	.437	.310	.031	.031	-322	.290	.674	.500	.094	.187
-2790	.253	.438	.307	.094	.026	-323	.295	.625	.375	.062	.031
-280	.253	.615	.310	.031	.047	-324	.306	.825	.445	.094	.406
-281	.253	.740	.341	.031	.047	-325	.308	.428	.350	.125	.047
-282	.253	.750	.371	.031	.047	-3250	.310	.825	.435	.060	.325
-2820	.253	.830	.452	.100	.250	-3252	.312	.390	.348	.062	.207
-283	.254	.498	.375	.062	.687	-3255	.312	.500	.365	.062	.325
-284	.254	.630	.375	.062	.187	-326	.312	.750	.434	.171	.422
-2840	.255	.370	.307	.110	.125	-328	.316	.620	.370	.062	.500
-285	.255	.464	.312	.016	.078	-3280	.318	.562	.400	.030	.030
-286	.255	.467	.312	.047	.125	-3290	.320	.750	.368	.062	.031
-287	.255	.513	.312	.062	.375	-3291	.320	.735	.368	.031	.062
-288	.255	.550	.375	.062	.422	-3292	.322	.740	.430	.062	.395
-289	.255	.562	.375	.062	.437	-331	.323	.750	.375	.047	.047
-290	.255	.625	.322	.062	.187	-332	.328	.687	.437	.125	.125
-291	.255	.625	.375	.125	.812	-333	.328	.693	.437	.062	.125
-292	.256	.348	.290	.031	.062	-3330	.332	.760	.410	.078	.047
-295	.257	.500	.343	.062	.094	-3335	.335	.562	.370	.024	.047
-296	.257	.675	.480	.094	.062	-334	.335	.872	.617	.125	.500
-297	.257	.730	.375	.250	.343	-335	.349	.502	.399	.031	.125
-2970	.257	.745	.310	.065	.027						
-298	.258	.753	.409	.078	.047						

(continued next page)

Tolerance on all dimensions:
 +/- .015.

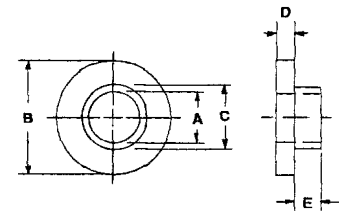
.209 I.D. to .349 I.D.

MOLDED NYLON SHOULDER WASHERS (continued)

*Available in other materials. See materials list in index.
 Other sizes available on request.

*Available in the following materials:

Material Code No.	Material Name
-18	Nylon 6/6, (natural)
-78	Nylon 6/6, (black)



Conversion note: 1 inch = 25.4 mm 1 mm = 0.03937 inch

Part No. DN212 - (Size Code No.) - (Material Code No.)

Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.	Size Code No.	A I.D.	B Flange O.D.	C Shank O.D.	D Flange Thk.	E Shank Thk.
-336	.370	.750	.500	.078	.312	-3852	.510	1.125	.700	.094	.437
-3380	.375	.750	.500	.062	.187	-386	.510	1.230	.980	.062	.094
-3400	.375	.750	.500	.125	.062	-3860	.515	.745	.556	.031	.050
-3420	.375	1.000	.500	.125	.750	-387	.515	1.000	.616	.094	.031
-345	.375	.725	.437	.156	.156	-3870	.515	1.105	.718	.092	.281
-347	.375	.743	.443	.062	.187	-388	.515	1.105	.752	.125	.281
-348	.375	.743	.500	.094	.109	-389	.515	1.125	.740	.062	.094
-349	.375	.750	.500	.062	.125	-390	.520	.825	.620	.062	.500
-350	.375	.750	.500	.125	.031	-391	.538	1.252	.600	.062	.406
-352	.375	.875	.500	.062	1.000	-392	.550	.790	.625	.047	.422
-353	.375	1.005	.500	.062	.312	-3920	.562	1.250	.930	.062	.094
-354	.376	.743	.437	.062	.187	-3922	.562	1.250	.989	.062	.094
-355	.378	.625	.448	.031	.031	-393	.612	1.064	.787	.062	.062
-3550	.378	.625	.447	.030	.030	-395	.627	1.245	.875	.125	.500
-356	.378	.625	.495	.062	.031	-3950	.630	.880	.750	.047	.203
-3560	.378	.625	.447	.062	.031	-3952	.635	.875	.750	.062	.500
-357	.378	.750	.498	.031	.156	-396	.695	.995	.787	.125	.625
-358	.378	.750	.498	.062	.187	-3960	.695	.995	.788	.125	1.000
-359	.378	.750	.505	.078	.250	-397	.695	.995	.792	.125	.187
-362	.380	.625	.500	.062	.312	-398	.806	2.060	1.050	.125	.500
-3610	.380	.750	.605	.500	.250	-3980	.885	1.250	.995	.156	.343
-363	.380	.980	.556	.125	.250						
-364	.382	1.000	.500	.062	.562						
-365	.383	.620	.434	.047	.031						
-366	.383	.743	.502	.078	.312						
-367	.384	.748	.504	.125	.359						
-370	.385	.570	.470	.062	.375						
-374	.390	.750	.577	.094	.109						
-3740	.395	.625	.500	.062	.312						
-375	.406	.945	.470	.078	.531						
-3750	.413	.570	.491	.039	.783						
-376	.430	.750	.500	.187	.047						
-377	.435	.735	.490	.187	.047						
-378	.435	1.739	1.095	.203	.203						
-379	.440	.875	.630	.125	.375						
-381	.471	1.251	.528	.062	.406						
-382	.500	.745	.560	.031	.312						
-384	.508	.688	.543	.031	.047						
-385	.508	1.000	.770	.078	.109						
-3850	.510	.750	.625	.062	.187						

Tolerance on all dimensions:
 +/- .015.

.370 I.D. to .885 I.D.