

**ALMEN N STRIP SPECIFICATIONS**  
inches(mm)

SPECIFICATION	LENGTH		WIDTH		THICKNESS		FLATNESS	HARDNESS
<b>Electronics Inc. Grade N-1S</b>	3.008 2.985	2.9965 ± 0.0115	0.750 0.745	.7475 ± 0.0025	0.0315 0.0306	.03105 ± .00045	±0.0005	<b>HRA 73.0-74.5</b>
	<b>(76.40)</b> (75.82)	<b>(76.11 ± 0.29)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.800)</b> (0.777)	<b>(.7885 ± .0115)</b>	<b>(±0.013)</b>	
<b>Electronics Inc. Grade N-1</b>	3.008 2.985	2.9965 ± 0.0115	0.750 0.745	.7475 ± 0.0025	0.0319 0.0303	.0311 ± .0008	±0.0010	<b>HRA 72.5-76.0</b>
	<b>(76.40)</b> (75.82)	<b>(76.11 ± 0.29)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.810)</b> (0.770)	<b>(0.79 ± 0.02)</b>	<b>(±0.025)</b>	
<b>Electronics Inc. Grade N-2</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0303	0.03115 ± 0.00085	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.770)	<b>(0.7915 ± 0.0215)</b>	<b>(±0.038)</b>	
<b>Electronics Inc.<sup>2</sup> Grade N-3</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0303	0.03115 ± 0.00085	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.770)	<b>(0.7915 ± 0.0215)</b>	<b>(±0.038)</b>	
<b>ASTM B851-94 [Grade N-1]</b>	3.008 2.976	2.992 ± 0.016	0.748 0.744	0.746 ± 0.002	0.0319 0.0303	.0311 ± .0008	±0.0010	<b>HRA 72.5-76.0</b>
	<b>(76.40)</b> (75.60)	<b>(76.0 ± 0.4)</b>	<b>(19.00)</b> (18.90)	<b>(18.95 ± 0.05)</b>	<b>(0.810)</b> (0.770)	<b>(0.79 ± 0.02)</b>	<b>(±0.025)</b>	
<b>BAEP 2009 [GradeN-3]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>Bell Helicopter TEXTRON BPS FW4409 [GradeN-1]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0010	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.025)</b>	
<b>Boeing BAC5730 M [N-1S]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 73.0-74.5</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>Boeing BAC5730 N [N-1B]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 73.0-74.5</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>Boeing PSD 6-81 [Grade N-2]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>Boeing PSD 6-88 [Grade N-2]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>Boeing P.S. 14023 [Grade N-1]</b>	3.008 2.976	2.992 ± 0.016	0.750 0.742	0.746 ± 0.004	0.0319 0.0303	.0311 ± .0008	±0.0010	<b>HRA 72.5-76.0</b>
	<b>(76.40)</b> (75.60)	<b>(76.0 ± 0.4)</b>	<b>(19.05)</b> (18.85)	<b>(18.95 ± 0.1)</b>	<b>(0.810)</b> (0.770)	<b>(0.79 ± 0.02)</b>	<b>(±0.025)</b>	
<b>Caterpillar 1E 2054 see SAE 1070 [Grade N-1]</b>	3.008 2.976	2.992 ± 0.016	0.750 0.742	0.746 ± 0.004	0.0320 0.0300	0.031 ± 0.001	±0.0010	<b>HRA 72.5-76.0</b>
	<b>(76.40)</b> (75.60)	<b>(76.0 ± 0.4)</b>	<b>(19.05)</b> (18.85)	<b>(18.95 ± 0.1)</b>	<b>(0.812)</b> (0.762)	<b>(0.787 ± 0.025)</b>	<b>(±0.025)</b>	
<b>deHavilland Aircraft PPS. 17.03 [Grade N-2]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>Garrett Aviation GPE-00071 [Grade N-2]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	
<b>GE D50TF14-S1 [Grade N-1S]</b>	3.008 2.976	2.992 ± 0.016	0.750 0.742	.746 ± .004	0.0319 0.0303	.0311 ± .0008	±0.0010	<b>HRA 72.5-76.0</b>
	<b>(76.40)</b> (75.60)	<b>(76.0 ± 0.4)</b>	<b>(19.05)</b> (18.85)	<b>(18.95 ± 0.1)</b>	<b>(0.810)</b> (0.770)	<b>(0.79 ± 0.02)</b>	<b>(±0.025)</b>	
<b>GE P11C-AG4 Rev. D [Grade N-1]</b>	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0007	<b>HRA 72.5-76.0</b>
	<b>(76.58)</b> (75.82)	<b>(76.20 ± 0.38)</b>	<b>(19.05)</b> (18.92)	<b>(18.985 ± 0.065)</b>	<b>(0.813)</b> (0.762)	<b>(0.7875 ± 0.0255)</b>	<b>(±0.038)</b>	

	(75.82)	(76.20 ± 0.38)	(18.92)	(18.985 ± 0.065)	(0.762)	(0.7875 ± 0.0255)	(±0.018)	
GE P11TF3-S6 [Grade N-1]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0007	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.018)	
GE P11TF3-S11 [Grade N-1S]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0007	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.018)	
GE P11TF3-S13 [Grade N-1S]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0007	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.018)	
General Motors Engineering Standards GM 4283P [Grade N-1]	<u>3.007</u> 2.997	2.992 ± .015	<u>0.748</u> 0.744	.746 ± .002	<u>0.0323</u> 0.0299	0.0311 ± .0012	±0.0008	HRA 72.5-78.5
	(76.38) (75.82)	(76.0 ± 0.38)	(19.00) (18.90)	18.95 ± 0.05	(0.820) (0.760)	0.79 ± 0.03	(±0.020)	
Hawker Siddeley Aviation S.29.46 [Grade N-1]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0010	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.025)	
Locheed-Georgia STP51-501 [Grade N-2]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0015	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.038)	
MIL-P-81985 [Grade N-1]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0010	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.025)	
MIL-S-13165C [Grade N-2]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0015	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.038)	
Navar 02-1-517/T.O. 2-1-11/DMWR 55-2800-206 [Grade N-1]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0319</u> 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
Navistar International Transportation Corp. CEMS A-39 [Grade N-1]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0319</u> 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
Pratt & Whitney 70-41-02 [Grade N-1]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0319</u> 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
Pratt & Whitney PT444142 A [Grade N-1S]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0315</u> 0.0305	.0310 ± .0005	±0.0005	HRA 73-75
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.800) (0.775)	(.7875 ± .0125)	(±0.013)	
Pratt & Whitney PT80922 F [Grade N-1]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.748</u> 0.744	0.746 ± 0.002	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.00) (18.90)	(18.95 ± 0.05)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.025)	
Pratt & Whitney PWA 36906 [Grade N-1]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0319</u> 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
Pratt & Whitney TAM65618 [Grade N-1]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0010	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.025)	
SAE-AMS-13165C [Grade N-2]	<u>3.015</u> 2.985	3.00 ± 0.015	<u>0.750</u> 0.745	.7475 ± 0.0025	<u>0.0320</u> 0.0300	0.031 ± 0.001	±0.0015	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.038)	
SAE AMS2430L <sup>1</sup> [Grade N-1]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0319</u> 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
SAE AMS2432B [Grade N-1S]	<u>3.008</u> 2.976	2.992 ± 0.016	<u>0.750</u> 0.742	.746 ± 0.004	<u>0.0316</u> 0.0306	0.0311 ± 0.0005	±0.0005	HRA 73.0-74.5
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.803) (0.770)	(0.79 ± 0.02)	(±0.025)	

	(75.60)	(76.0 ± 0.4)	(18.85)	(18.95 ± 0.1)	(0.777)	(0.79 ± 0.02)	(±0.025)	
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SAE J442 JAN-95 [Grade N-1]	3.008 2.976	2.992 ± 0.016	0.750 0.742	.746 ± 0.004	0.0319 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
Sikorsky Aircraft [Grade N-2]	3.015 2.985	3.00 ± 0.015	0.750 0.745	.7475 ± 0.0025	0.0320 0.0300	0.031 ± 0.001	±0.0015	HRA 72.5-76.0
	(76.58) (75.82)	(76.20 ± 0.38)	(19.05) (18.92)	(18.985 ± 0.065)	(0.813) (0.762)	(0.7875 ± 0.0255)	(±0.038)	
SPOP 501 [Grade N-1]	3.008 2.976	2.992 ± 0.016	0.750 0.742	.746 ± 0.004	0.0319 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	
Volvo Aero Corp 18 22 58 [Grade N-1S]	3.008 2.976	2.992 ± 0.016	0.750 0.742	0.746 ± 0.004	0.0316 0.0306	0.0311 ± 0.0005	±0.0005	HRA 73.0-74.5
	(76.40) (75.60)	(76.0 ± 0.4)	(19.05) (18.85)	(18.95 ± 0.1)	(0.803) (0.777)	(0.79 ± .013)	(±0.013)	

NOTE: <sup>1</sup> SAE AMS2430L section 3.2.2 states Test Strips: Shall conform to SAE J442 ...

	References the length		References the width		References the thickness measured		References the	References
Electronics Inc. Grade N1	3.008 2.985	2.9965 ± 0.0115	0.750 0.745	.7475 ± 0.0025	0.0319 0.0303	.0311 ± .0008	±0.0010	HRA 72.5-76.0
	(76.40) (75.82)	(76.11 ± 0.29)	(19.05) (18.92)	(18.985 ± 0.065)	(0.810) (0.770)	(0.79 ± 0.02)	(±0.025)	

A

B

C

D

E

References to the  
specification it meets

References the length  
measured in millimeters

References the width  
measured in inches

References the thickness measured  
in inches

References the  
flatness  
measured in  
millimeters

