

USER ACTIVITIES:
ARMY-CRMI

REVIEWER ACTIVITIES:
AIR FORCE-82
DLA-IS

This military standard is approved for use by all Departments and Agencies of the Department of Defense. Selection for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

REQUIREMENTS:

FED. SUP CLASS
5310

- MATERIAL:** CARBON STEEL, COMPOSITIONS 1035 (UNS G10350), 1040 (UNS G10400) AND 1050 (UNS G10500), IN ACCORDANCE WITH QQ-S-635; 1042 (UNS G10420), IN ACCORDANCE WITH ASTM A29. ALLOY STEEL, GRADES 4130 (UNS G41300), 4340 (UNS G43400) AND 8740 (UNS G87400), IN ACCORDANCE WITH ASTM A29.
- FINISH:** CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416 TYPE 11, CLASS 2. FOR DRY FILM LUBRICATED NUTS, THE TYPE AND CLASS ARE OPTIONAL IF THE NUTS MEET THE SALT SPRAY REQUIREMENTS OF QQ-P-416 TYPE 11.
- DIMENSIONING AND TOLERANCING:** DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M.
- HARDNESS:** 49HRC, MAX.
- THREADS:** THREADS BEFORE LUBRICATION IN ACCORDANCE WITH MIL-S-8879.
- SURFACE TEXTURE:** SURFACE TEXTURE, UNLESS OTHERWISE SPECIFIED, SHALL NOT EXCEED 125 MICROINCHES, IN ACCORDANCE WITH ANSI B46.1.
- LUBRICANT:** DRY FILM LUBRICANT APPROVED IN ACCORDANCE WITH MIL-N-25027. NON-DRY FILM LUBRICANTS SHALL BE SOLUBLE IN THE CLEANER SPECIFIED IN MIL-S-8802.
- COUNTERBORE/COUNTERSINK:** ON SIZE .164 AND LARGER, COUNTERBORE THREAD "D" DIAMETER X .062 DEEP MINIMUM THREAD RELIEF; ON SIZE .138 AND SMALLER, COUNTERSINK TO "P" DIAMETER WITHIN THE LIMITS OF D, P AND M.
- PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE 1.

EXAMPLE: MS21051L4

— DASH NUMBER
— BASIC MS NUMBER

MS21051L4 INDICATES: NUT, SELF-LOCKING, PLATE, ONE LUG, LOW HEIGHT, STEEL;
125 KSI Ftu, 450° F; .250-28 UNF-3B; DRY FILM LUBRICANT

NOTES:

- ALL DIMENSIONS ARE IN INCHES.
- IN THE EVENT OF A CONFLICT BETWEEN THE TEXT OF THIS STANDARD AND THE REFERENCES CITED HEREIN, THE TEXT OF THIS STANDARD SHALL TAKE PRECEDENCE.
- REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DODISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.
- DESIGN AND USAGE LIMITATIONS: THESE NUTS ARE DESIGNED TO DEVELOP THE TENSILE STRENGTH OF BOLTS AND SCREWS WITH AN ULTIMATE TENSILE STRENGTH OF 125 KSI BASED ON THE CROSS SECTION AREA AT THE BASIC ROOT DIAMETER OF THE THREADS. THESE NUTS ARE DESIGNED TO BE USED ON 3A EXTERNAL THREADS. THESE NUTS SHALL BE USED IN ACCORDANCE WITH THE LIMITATIONS OF MS33588. ONLY NUTS FOR WHICH THERE ARE QUALIFIED PRODUCTS LISTED ON QPL 25027 SHALL BE USED.

INTERCHANGEABILITY RELATIONSHIP

MS21051 NUTS CAN UNIVERSALLY REPLACE NAS682 NUTS OF LIKE MATERIAL, THREAD SIZE, LUBRICANT (DRY FILM OR NON-DRY FILM LUBRICANT), AND FASTENING METHOD (PLAIN RIVET HOLES; DIMPLED OR COUNTERSUNK RIVET HOLES), BUT THESE NAS682 NUTS CANNOT UNIVERSALLY REPLACE MS21051 NUTS.

INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS682X06	MS21051-06
NAS682X06K	MS21051-06K
NAS682A06	MS21051L06
NAS682A06K	MS21051L06K
NAS682X08	MS21051-08
NAS682X08K	MS21051-08K
NAS682A08	MS21051L08
NAS682A08K	MS21051L08K
NAS682X3	MS21051-3
NAS682X3K	MS21051-3K
NAS682A3	MS21051L3
NAS682A3K	MS21051L3K
NAS682X4	MS21051-4
NAS682X4K	MS21051-4K
NAS682A4	MS21051L4
NAS682A4K	MS21051L4K
NAS682X5	MS21051-5
NAS682X5K	MS21051-5K
NAS682A5	MS21051L5
NAS682A5K	MS21051L5K
NAS682X6	MS21051-6
NAS682X6K	MS21051L6
NAS682X7	MS21051-7
NAS682A7	MS21051L7

P. A. NAVY-AS Other Cost ARMY-AV AIR FORCE-11	INTERNATIONAL INTEREST	TITLE NUT, SELF-LOCKING, PLATE, ONE LUG, LOW HEIGHT, STEEL, 125 KSI Ftu, 450° F	MILITARY STANDARD MS21051
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES: NAS 682, NAS 1025 IN PART	PAGE 2 OF 2	

DD FORM 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5310-1533

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