



FED. SUP CLASS  
5310

## REQUIREMENTS:

1. **MATERIAL:** CARBON STEEL, COMPOSITIONS 1035 (UNS G10350), 1040 (UNS G10400), AND 1050 (UNS G10500) IN ACCORDANCE WITH QQ-S-635; 1042 (UNS G10420), 1137 (UNS G11370) IN ACCORDANCE WITH ASTM A29. ALLOY STEEL, GRADES 4130 (UNS G41300), 4340 (UNS G43400) AND 8740 (UNS G87400) IN ACCORDANCE WITH ASTM A29. INSERT - NON-METALLIC, NYLON OR EQUIVALENT.
2. **FINISH:** CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416, TYPE II, CLASS 2.
3. **DIMENSIONING AND TOLERANCING:** DIMENSIONING AND TOLERANCING SHALL BE IN ACCORDANCE WITH ANSI Y14.5M.
4. **HARDNESS:** 35HRC, MAX.
5. **THREADS:** THREADS IN ACCORDANCE WITH MIL-S-8879.
6. **SURFACE TEXTURE:** SURFACE TEXTURE, UNLESS OTHERWISE SPECIFIED, SHALL NOT EXCEED 125 MICROINCHES, IN ACCORDANCE WITH ANSI B46.1.
7. **VIBRATION LIFE:** MINIMUM VIBRATION LIFE REQUIREMENT SHALL BE THREE TIMES AVERAGE VIBRATION LIFE IN ACCORDANCE WITH PROCUREMENT SPECIFICATION.
8. **EDGES:** BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
9. **PART NUMBER:** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER FROM TABLE 1.

EXAMPLE: MS21081-4

DASH NUMBER

BASIC MS NUMBER

MS21081-4 INDICATES: NUT, SELF-LOCKING, PLATE, CORNER, NON-METALLIC INSERT, STEEL;  
125 KSI Ftu, 250°F; .250-28 UNF-3B; PLAIN HOLES.

## NOTES:

1. ALL DIMENSIONS ARE IN INCHES.
2. 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.
3. REFERENCED GOVERNMENT (OR NON-GOVERNMENT) DOCUMENTS OF THE ISSUE LISTED IN THAT ISSUE OF THE DEPARTMENT OF DEFENSE INDEX OF SPECIFICATIONS AND STANDARDS (DOOISS) SPECIFIED IN THE SOLICITATION FORM A PART OF THIS STANDARD TO THE EXTENT SPECIFIED HEREIN.
4. 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

MS21081 NUTS CAN UNIVERSALLY REPLACE NAS1027 NUTS OF LIKE MATERIAL, THREAD SIZE AND FASTENING METHOD (PLAIN RIVET HOLES; DIMPLED OR COUNTERSUNK RIVET HOLES), BUT THESE NAS1027 NUTS CANNOT UNIVERSALLY REPLACE MS21081 NUTS.

## INTERCHANGEABILITY TABLE

CANCELLED PART NUMBERS	SUBSTITUTIVE PART NUMBERS
NAS1027N04	MS21081-04
NAS1027N04K	MS21081-04K
NAS1027N06	MS21081-06
NAS1027N06K	MS21081-06K
NAS1027N08	MS21081-08
NAS1027N08K	MS21081-08K
NAS1027N1	MS21081-3
NAS1027N1K	MS21081-3K
NAS1027N4	MS21081-4
NAS1027N4K	MS21081-4K
NAS1027N5	MS21081-5
NAS1027N5K	MS21081-5K
NAS1027N6	MS21081-6
NAS1027N6K	MS21081-6K
NAS1027N7	MS21081-7
NAS1027N7K	—
NAS1027N8	MS21081-8
NAS1027N8K	—
NAS1027N10	MS21081-10
NAS1027N10K	—

P. A. NAVY-AS Other Cast ARMY-AV AIR FORCE-11	INTERNATIONAL INTEREST	TITLE NUT, SELF-LOCKING, PLATE, CORNER, NON-METALLIC INSERT, STEEL, 125KSI Ftu, 250°F	MILITARY STANDARD <b>MS21081</b>
PROCUREMENT SPECIFICATION MIL-N-25027	SUPERSEDES: NAS 1027 IN PART	PAGE 2 OF 2	

DD FORM 672-1 (COORDINATED)

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE

5310-1547

USER ACTIVITIES:  
ARMY-CR,MIREVIEWER ACTIVITIES:  
AIR FORCE-82  
DLA-1SThis military standard is approved for use by all Departments and Agencies of the Department of Defense.  
Deviation for all new engineering and design applications and for repetitive use shall be made from this document when applicable.

APPROVED 9 MAR 64 REVISED © FOR CHANGES SEE PAGES 1 AND 2