

**AEROSPACE
MATERIAL
SPECIFICATION**

SAE AMS 3853/2

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Submitted for recognition as an American National Standard

**CORD, AROMATIC POLYAMIDE, NONMELTING
375 lb (1670 N), 230 ft per lb (155 m/kg)**

1. SCOPE:

- 1.1 Form: This specification covers one type of aromatic polyamide in the form of cord.
- 1.2 Application: Primarily for use in personnel parachute suspension lines.
- 1.3 Classification: Breaking strength not lower than 375 lb (1670 N) and weight not lower than 230 ft per lb (155 m/kg).

2. APPLICABLE DOCUMENTS: See AMS 3853.

3. TECHNICAL REQUIREMENTS:

- 3.1 Basic Specification: The complete requirements for procuring the cord described herein shall consist of this document and the latest issue of the basic specification, AMS 3853.
- 3.2 Construction: Shall be as specified in Table I.

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REAFFIRMED

10/91

TABLE I
CONSTRUCTION

	Core	Sleeve
<u>Yarns:</u>		
Denier	200	200
Ply	First - 7 Final - 3	4
Twist, turns per in. (25.4 mm)		
Singles	Producers	7.0 to 9.5
Ply	First 10S - 16S Final 6Z - 8Z	5 to 7
Number of Plied Yarns	4	
Picks per in. (25.4 mm)		24 to 26
Number of Carriers and Ends per Carrier		32/1

3.3 Properties: Cord shall conform to the following requirements, determined in accordance with test methods specified in the basic specification:

3.3.1 Breaking Strength, min 375 lb (1670 N)

3.3.2 Elongation, min 20%

3.3.3 Length per Unit Weight, min 230 ft per lb (155 m/kg)

3.3.4 Length on One Spool or Reel, min 2100 ft (640 m) or
1200 ft (365 m)

3.3.5 Extractable Matter: Material shall not be added for the purpose of weighting the cord. The chloroform soluble material of the cord shall not exceed 2.0%.

3.3.6 Resistance to Light and Heat: The cord shall lose no more than 15% of its original breaking strength after exposure to light and to heat.

3.3.7 Color: Shall be natural except that when colored cord is specified, the color of the cord shall be obtained by yarn dyeing and shall match the approved standard shade.

3.3.7.1 Color Matching: When dyed cord is specified, the shade of the cord shall match the standard sample under natural (north sky) daylight or artificial daylight having a color temperature of 7500° K and shall be a good approximation to the standard sample under incandescent lamplight at 2800° K.