

SAE Aerospace An SAE International Group	AEROSPACE MATERIAL SPECIFICATION	SAE AMS3217/2	REV. C
		Issued 1983-07 Reaffirmed 2004-03 Revised 2012-04	Superseding AMS3217/2B
Test Slabs, Acrylonitrile Butadiene (NBR-L) Low Acrylonitrile, 65 - 75			

RATIONALE

Paracril 1880 was discontinued by supplier. This change in availability required a change to specification and formulation of nitrile reference material.

1. SCOPE

1.1 Form

This specification covers a standard acrylonitrile butadiene (NBR-L) rubber stock with low acrylonitrile content in the form of molded test slabs.

1.2 Application

See AMS3217.

2. APPLICABLE DOCUMENTS

See AMS3217.

3. TECHNICAL REQUIREMENTS

3.1 Basic Specifications

The complete requirements for test slabs described herein and their procurement shall consist of this document and the latest issue of the basic specification AMS3217.

3.2 Material

Shall be a low-acrylonitrile butadiene (NBR-L) compounded to the formulation shown in Table 1.

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TABLE 1 - FORMULATION

Ingredients	NIST SRM		Parts
	Number		
Nipol N917 [®] or equivalent ¹	-	100.0	(See 3.2.1)
Zinc Oxide	370	5.0	(See 3.2.2)
Stearic Acid	372	1.5	(See 3.2.2)
Sulfur	371	1.5	(See 3.2.2)
Sid Richardson N550 Carbon Black or equivalent ¹			
(See 3.2.3)	-	60.0	(See 3.2.2)
Altax [®] or equivalent ¹	-	1.5	(See 3.2.2)
Press Cure: 20 minutes \pm 0.5 at 325 °F \pm 5 (163 °C \pm 3)			
¹ Equivalent ingredients must be approved by SAE Committee CE.			

3.2.1 Weigh parts to the nearest 0.1 gram.

3.2.2 Weigh parts to the nearest 0.02 gram.

3.2.3 ASTM D 1765 designation.

3.3 Processing

After the elastomer has banded on the rubber mill, the other ingredients shall be added in the order listed in Table 1.

3.3.1 The stock shall not be allowed to become hotter than can be handled with the bare hands; it is recommended that the stock be removed from the mill and cooled to room temperature before incorporating the final ingredient.

3.3.2 After all ingredients have been incorporated and the stock has been thoroughly milled, the stock shall be passed 10 times through a tight mill.

3.3.3 Suitable preforms shall be cut from the freshly milled stock and molded into test slabs as specified in ASTM D 3182, Figure 1.

3.4 Properties

Shall be as shown in Table 2.