



AEROSPACE MATERIAL SPECIFICATION	AMS3217/1	REV. B
	Issued 1983-07 Revised 1998-06 Reaffirmed 2013-09 Superseding AMS3217/1A	
Test Slabs, Acrylonitrile Butadiene (NBR-H) Medium-High Acrylonitrile, 65 - 75		

RATIONALE

AMS3217/1B has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE:

1.1 Form:

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

1.2 Application:

See AMS 3217.

2. APPLICABLE DOCUMENTS:

See AMS 3217.

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 AMS 3217.

3.2 Material:

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

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TABLE 1 – FORMULATION

Ingredients	NIST SRM Number	Parts
Nipol 1002® 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)	-	45.0 (See 3.2.1)
Altax® or equivalent ¹	-	1.5 (See 3.2.2)
Press Cure: 20 minutes ± 0.5 at 155 °C ± 3 (311 °F ± 5).		

¹Equivalent 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.

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