



# QUALITY ASSURANCE SPECIFICATIONS™

SFI SPECIFICATION 4.2

EFFECTIVE: OCTOBER 26, 1994\*

PRODUCT: Tractor Blankets

## 1.0 GENERAL INFORMATION

- 1.1 This SFI Specification establishes uniform test procedures and minimum standards for evaluating and determining performance capabilities for Tractor Blankets used by individuals engaged in competitive motorsports.
- 1.2 The procedures, test evaluations and standards contained herein, are intended only as minimum guidelines for construction and evaluation of products. Certification that products meet such minimum standards is made by the product manufacturer and products are not certified, endorsed or approved by SFI under this program.
- 1.3 Use of the "This Manufacturer Certifies That This Product Meets SFI Specification 4.2" logo/designation, the authorized artwork style, or conventional lettering by a manufacturer, on a subject product, is intended only to indicate that the manufacturer of the product has represented that they have submitted the product to the recommended tests, with positive results, in compliance with the standards established herein.
- 1.4 This SFI Specification requires a demonstration that the product of a manufacturer meets or exceeds the requirements when the manufacturer enters the program; and on a periodic basis thereafter. Any manufacturer may participate in the program by providing Tractor Blankets that meet or exceed the SFI Specification 4.2 test standards, by complying with the requirements of the SFI Specification 4.2 program, and by signing a licensing agreement with the SFI Foundation, Inc.

- 1.5 Compliance with this specification is entirely voluntary. However, when a manufacturer provides Tractor Blankets in compliance with all requirements of the SFI Specification 4.2 and enters into the licensing agreement with the SFI Foundation, Inc., they may certify that compliance with such standards is in accordance with the guidelines established herein.
- 1.6 Manufacturers wishing to participate in the program, in addition to the other requirements of this specification, must label each of their products with the manufacturer's name, trademark or symbol as well as the date of manufacture of the product.
- 1.7 No manufacturer may display the SFI logo/designation on their product unless the manufacturer has signed a licensing agreement with SFI and has successfully complied with all the requirements of this specification and the self-certification program.

## 2.0 DEFINITIONS

- 2.1 Tractor Automatic Transmission Blankets shall be made in the form of a flexible cover that wraps around the transmission with at least a six inch overlap. It shall be capable of being securely attached to the coverage area and provide protection from any explosive fragments.
- 2.2 The Tractor Automatic Transmission Blanket shall cover the circumferential surface from the rear of the engine block to the start of the tail housing of the transmission.
- 2.3 The useful life of the Tractor Automatic Transmission Blanket shall not exceed five (5) years. It shall be replaced at or before that time due to environmental factors.
- 2.4 Any blanket pertaining to this specification shall remain as constructed by the original manufacturer and not modified.

## 3.0 CONSTRUCTION

The blanket shall be constructed such that the installation and fastening method will secure the blanket in place and sustain fragment containment in case of an explosion.

## 4.0 MODEL CLASSIFICATION

Any change of materials or method of construction shall be considered a model change.

## 5.0 TESTING

### 5.1 PENETRATION RESISTANCE

This test is based on Military Standard 662D, "Ballistic Test for Armor" (MIL-STD-662D).

#### 5.1.1 SAMPLES

One square sample, 15 by 15  $\pm$ 1 inch (38.1 by 38.1  $\pm$ 2.5 centimeters) shall be supplied. The sample shall have the identical layer fabric, layer order and construction, thread and stitch composition, and overall assembly as that of the blanket that is being evaluated.

#### 5.1.2 APPARATUS

The apparatus shall comply with MIL-STD-662D.

##### A. PROJECTILE

Caliber .22 - Type 2, fragment simulators conforming to MIL-P-46593A shall be used.

#### 5.1.3 PROCEDURES

The sample shall be testing in accordance with MIL-STD-662D for the Ballistic Limit,  $V_{50}$  BL(P). The maximum velocity span shall be 150 feet per second {fps} (46 meters per second {mps}).

#### 5.1.4 INTERPRET RESULTS

The  $V_{50}$  BL(P) shall be calculated by taking the arithmetic mean of the two highest partial, and the two lowest complete, penetration impact velocities within the allowable velocity span.

## 6.0 PROOF OF COMPLIANCE

Tractor Blanket manufacturers are required to provide the following information to enroll in this program:

## 6.1 TEST RESULTS

Test results shall be documented in a test report.

### 6.1.1 PENETRATION RESISTANCE

The ballistic resistance of the sample shall be greater than or equal to a  $V_{50}$  BL(P) of 1779 fps (542 mps).

## 7.0 TEST REPORTS

A separate test report, or set of test reports if required, shall be submitted for each product model. If more than one test facility is required to complete all necessary tests, then a separate test report shall be submitted from each one. A test report shall be submitted for each component, if tested separately. The test facility shall assign a unique number to each test report. This number along with the report date and page number shall appear on each page. Each test report shall include:

### 7.1 RELEVANT INFORMATION

- 7.1.1 Manufacturer's name, contact name, address and telephone number.
- 7.1.2 Name, address and telephone number of the test facility.
- 7.1.3 Name and signature of the responsible test supervisor.
- 7.1.4 Actual date of the test.
- 7.1.5 Specification number and effective date.
- 7.1.6 Product name, description and model designation.
- 7.1.7 Component name and description.

### 7.2 TESTS

Each test conducted shall be listed showing the test name, apparatus used, procedure used and test results obtained along with any other appropriate information.

### 7.3 AUTHENTICATION

Test reports shall be authenticated and stamped by a Professional Engineer who is registered in the state in which the testing is conducted. If necessary, SFI may allow an equivalent entity to provide authentication.

### 8.0 INITIAL DESIGN VALIDATION

To receive initial recognition from SFI as a participant in the SFI Specification 4.2 Program, the manufacturer must submit to SFI all information delineated in the Proof of Compliance section. This information shall be provided for each Tractor Blanket model offered by the applicant that is to be included in the program. Any change in design, materials and/or methods of manufacturing not specifically excluded is considered a model change and, therefore, requires initial design validation.

### 9.0 PERIODIC REVALIDATION

Test reports with successful test results must be submitted to SFI at least once every 24 month period following the date of the initial design validation test for each model of Tractor Blanket manufactured by the participant. If multiple test reports are required to obtain all

test results, then the earliest test date shall be used to determine when the periodic revalidation reports are due. Also, SFI shall retain the option to conduct random audit reviews. SFI shall purchase the product on a commercial basis and test for compliance to the specification. The submitting manufacturer shall reimburse SFI for all audit costs.

### 10.0 CERTIFICATION OF COMPLIANCE

Upon demonstration of successful compliance with all the requirements of the specification and the self-certification program and upon entering the licensing agreement with SFI, the manufacturer may advertise, present and offer the Tractor Blankets for sale with the representation that their product meets the SFI Specification 4.2. Continuing certification is contingent upon the following additional considerations: (1) the product shall be resubmitted for testing following any change in design, materials and/or methods of manufacturing not specifically excluded, and (2) periodic revalidation test reports are submitted when due to SFI.

### 11.0 CONFORMANCE LABELS

The conformance label is a patch that shall be placed on the outside surface of the blanket. The patch will have a serial number that should appear on the customer invoice to aid in identification and tracking.

## 12.0 DECERTIFICATION

Participating manufacturers are subject to decertification when not in compliance with the requirements of this program or when their products are not in compliance with the requirements of this specification. Decertification will provide SFI the right to effect any and all remedies which are available to SFI in the licensing agreement.

## 13.0 APPEAL PROCEDURE

In the event of decertification, the manufacturer is entitled to an appeal of the decision of SFI. Requests for appeal must be received by SFI no later than thirty days following receipt of the notice of decertification. Appeals of such decisions will be heard at the next meeting of the Board of Directors of SFI.

## 14.0 STATEMENT OF LIMITATIONS

Testing procedures and/or standards contained in this specification are intended for use only as a guide in determining compliance with the minimum performance requirements as defined herein. The granting and assignment of the "This Manufacturer Certifies That This Product Meets SFI Specification 4.2" logo/designation is in no way an endorsement or certification of product performance or reliability by SFI. SFI, its officers, directors and/or members assume no responsibility, legal or otherwise, for failure or malfunctions of a product under this program.

## 15.0 COSTS

All costs involved in this program will be absorbed by the submitting manufacturer.

## 16.0 COMPLIANCE PERIOD

As this specification is revised to reflect changes in technology and/or field conditions, to remain current, participating manufacturers in the SFI Specification 4.2, Tractor Blankets, Program, must demonstrate full compliance with the requirements of this specification within ninety (90) days of the latest effective date.

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