GM WORLDWIDE ENGINEERING STANDARDS	Test Procedure	GMW14148

Resistance to Loop Pullout of Floor Carpet

1 Introduction

Note: Nothing in this standard supercedes applicable laws and regulations.

Note: In the event of conflict between the English and domestic language, the English language shall take precedence.

1.1 Purpose. This procedure is used to measure the force required to remove a loop from a floor carpet (formed carpet only).

1.2 Applicability. This procedure is applicable to carpet materials with loop construction.

1.3 Remarks. This procedure has been developed to simulate when a customer catches a loop with a sharp heel. The resulting force may cause the carpet to unravel.

2 References

Note: Only the latest approved standards are applicable unless otherwise specified.

2.1 External Standards/Specifications.

None

2.2 GM Standards/Specifications.

GMW3221

2.3 Additional References. None.

3 Resources

3.1 Facilities.

3.1.1 Calibration. The test facilities and equipment shall be in good working order and shall have a valid calibration label.

3.1.2 Alternatives. Alternative test facilities and equipment may also be used. However, all measuring variables as specified in this standard shall be determined correctly with respect to their physical definition.

3.2 Equipment.

3.2.1 A standard force gauge capable of measuring a maximum load (suggested range of 0 N to 500°N). Available from Ametek- Chatillon Force Measurement Products, 8600 Somerset Drive, Largo, Florida 33773, or equivalent.

3.2.2 A tong type clamp, or equivalent, shall be used for loop removal.

3.2.3 A specimen hook.

3.3 Test Vehicle/Test Piece. The test specimen shall be at least 250 mm × 250 mm and shall be used for checking the resistance to loop pullout “as received”.

3.4 Test Time.

Calendar time:	5 d
Test time:	3 d
Coordination time:	2 h

3.5 Test Required Information. Not applicable.

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3.6 Personnel/Skills. Personnel trained in accordance with the laboratory accreditation and Standard Operating Procedure requirements.

4 Procedure

4.1 Preparation.

4.1.1 For each test, select a loop that is at least 25 mm from random areas of the specimen. Do not test another loop along the same row from which a loop was previously tested.

4.1.2 Pass the hook through a single loop prior to testing. If the loop's size and tightness does not permit hook attachment, the tong type clamp shall be used. Clamp the loop and pass it through the specimen hook prior to testing.

4.2 Conditions. Unless otherwise specified in the relevant material specification, condition test specimens for a minimum of 24 h to the requirements of GMW3221, Code A.

4.2.1 Environmental Conditions. Not applicable.

4.2.2 Test Conditions. Deviations from the requirements of this standard shall have been agreed upon. Such requirements shall be specified on component drawings, test certificates, reports, etc.

4.3 Instructions.

4.3.1 Loop Pullout. When pulling the loop, the carpet may begin to unravel. Pull out as few loops as possible once the tested loop has detached. Record the peak force.

4.3.2 Repeat 4.3.1 as indicated from five (5) different areas of the specimen per 4.1.1 and 4.1.2.

5 Data

5.1 Calculations. Not applicable.

5.2 Interpretation of Results. Not applicable.

5.3 Test Documentation. Report the average peak force from the five (5) areas tested and any peak force which is below the minimum specified in the materials specification.

6 Safety

This Engineering Standard may involve safety requirements for hazardous materials, the method of operations and equipment. This standard does not propose to address all the safety issues associated with its use. It is the responsibility of the user of this standard to ensure compliance with all appropriate safety and health practices. This would include any specific training that may be required. The safety and health standards include site specific rules and procedures, company rules and procedures, and Government Standards. Contact shall be made with the appropriate site Safety and Health personnel for further direction and guidance in these matters.

7 Notes

7.1 Glossary. Not applicable.

7.2 Acronyms, Abbreviations, and Symbols.

GSSLT Global Subsystem Leadership Team

8 Coding System

This standard shall be referenced in other documents, drawings, etc., as follows:

Test to GMW14148

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