



**RK 6029 Revision 5**

**TPEM**

**SCOPE**

**This Quality Assurance Specification establishes the quality standard for a heat recoverable, polyolefin, adhesive lined, edging strip.**

**Approved Signatories\***

\* This document is electronically reviewed and approved - therefore no signatures will appear.

**1. REVISION HISTORY**

Revision Number	Change Request	Date	Incorporated By
4	CR98-DM-0199	24 September 1998	L. Abrams
5	Via DMTEC	17 March 2014	C. Diss

**2. REQUIREMENTS****2.1 Composition, Appearance and Colour**

The profile shall be fabricated from a stabilised modified polyolefin and shall be radiation cross-linked. It shall be homogeneous and essentially free from defects, pinholes, bubbles, cracks, inclusions and flaws. The profile shall be coated with a hot melt adhesive on the inner surfaces. The standard colour shall be black with an amber adhesive.

**2.2 Dimensions**

Dimensions shall be as per the appropriate Specification Control Drawing (SCD)

**2.3 Test Requirements**

The test requirements shall be as specified in Table 1.

**3. TEST METHODS****3.1 Preparation of Test Specimens**

Unless otherwise specified, tests shall be carried out on specimens recovered by conditioning in a fan assisted air circulating oven at  $200 \pm 5^\circ\text{C}$  for  $4 \pm 1$  minutes and allowed to cool in air to ambient temperature. No pre-conditioning period is required prior to testing. Unless otherwise specified, all tests shall be made under standard ambient conditions according to IEC Publication 60212. In cases of dispute the tests shall be carried out at a temperature of  $23 \pm 2^\circ\text{C}$  and at  $50 \pm 5\%$  relative humidity.

**3.2 Dimensions and Longitudinal Change**

Three specimens each approximately 150mm in length shall be measured for each of the dimensions specified in the relevant SCD. The specimens shall be recovered as specified in Clause 3.1 and the dimensions re-measured. The longitudinal change shall be expressed as a percentage of the original length.

**3.3 Tensile Strength and Ultimate Elongation**

The test method shall be as specified in ISO 37 and shall be carried out on uncoated, but beamed product only. For sizes below NR.8, whole sections shall be used, but for sizes NR.8 and above, Type 2 dumb-bells shall be prepared.

**TEST METHODS continued****3.4 Adhesion**

Five test specimens prepared as described in RTM 2560 shall be pulled on a suitable tensile test machine. The average value of peel force shall be calculated and reported in N/25mm.

**3.5 Split Resistance**

Examine the product for evidence of splitting.

**4. RELATED STANDARDS & issue**

ASTM D882-02	Standard Test Methods for Tensile Properties of Thin Plastic Sheeting
IEC 60212: 1971	Standard Conditions for Use Prior to and During Testing of Solid Electrical Insulating Materials
ISO 37: 1994	Rubber, vulcanized or thermoplastic - Determination of Tensile Stress-Strain Properties
RTM 2560	Peel Strength Measurement

**Subsequent amendments to, or revisions of, any of the above publications apply to this standard only when incorporated in it by updating or revision.**

**5. SAMPLING**

Qualification tests are those performed on profile samples submitted for qualification as a satisfactory product and when a change of formulation takes place, and shall consist of all tests listed within this specification. Qualification test samples shall consist of 15 metres of profile. Qualification of any size shall qualify all sizes.

Production Routine tests shall be carried out as follows: every batch; Dimensions, Longitudinal Change and Split Resistance. When adhesive compound batch changes adhesion will be tested. Tests shall be carried out on a sample length taken at random from a batch of finished product. A batch is defined as that quantity of the same size from the same production run and offered for inspection at the same time.

**6. PACKAGING**

Packaging shall be in accordance with good commercial practice. Each package shall bear an identification label showing material quantity, description, size, colour and batch number.

**TABLE 1 Test Requirements**

Test	Test Method	Test Requirements
Visual Examination	-	As per Clause 2.1
Dimensions	Clause 3.2	As per Clause 2.2
Longitudinal Change	Clause 3.3	+ 1 to -10 %
Tensile Strength	ISO 37	10 MPa minimum
Ultimate Elongation	ISO 37	250 % minimum
Secant Modulus at 2% Strain	ASTM D882	172 MPa maximum
Adhesion	RTM 2560	35 N/25mm minimum
Split Resistance	Clause 3.5	No Splitting

**In line with a policy of continual product development, TE Connectivity reserves the right to make changes in construction, materials and dimensions without further notice. You are advised, therefore, to contact TE Connectivity, should it be necessary to ensure that this document is the latest issue.**