# **3M** Application Profile

Market: Construction

**Application Description:** Splicing together fiberglass web in the manufacture of asphalt shingles and roofing materials.





## **Application Method**

Manual operation where the mat materials are cut and a 4'' - 6'' wide piece of 365 or 3650 is applied. Heat is applied either by hand or may be automated.

### **Key Application Requirements**

Splicing material that has equal or greater tensile than the fiberglass mat. Low profile. Must be able to make splice quickly ( $\sim 30$  - 90 seconds) Strength of bond must equal or exceed tensile of fiberglass mat. Reliable splice at temperatures up to 400°F. Splice material is attached over entire surface of glass mat so entire surface is coated. Material must be coatable with asphalt mixture. For high slope shingles where rotary cutting is employed, it is best if carbide blades are used on the tool vs. tooled steel, particularly in operations with high through-put.

#### Benefits/Advantages To Customer

Superior reliability: Splices made with 3M<sup>™</sup> Thermosetable Glass Cloth Tapes 365 and 3650 have superior reliability compared to hot melt glue splices, particularly in "bath" coating operations.

*Lower Profile:* 3M<sup>TM</sup> Thermosetable Glass Cloth Tape provides a thinner splice than an overlapping glue splice, resulting in less change to finished shingle profile.

*Resists moisture:* Butt splices made with 3M tape provide complete adhesive coverage for the spliced web leaving no overlapping uncoated mat to absorb moisture.

*Helps reduce maintenance:* Use of tape eliminates the use of hot melt glue guns, eliminating the time needed to clear plugged nozzles and routine maintenance time for glue gun heads.

*Tensile strength:* Tensile strength of the 3M tape and the finished spliced produced is greater than that of the fiberglass web.

#### **PRODUCT**

 $3M^{\mbox{\tiny TM}}$  Thermosetable Glass Cloth Tape 365 and 3650

#### **Process**

Operator precuts the length of 3M<sup>TM</sup> Thermosetable Glass Cloth Tape 365 or 3650, which is necessary as time spent is critical to the operation. Near the end of the fiberglass jumbo, they bring in the start of the new jumbo and make a butt splice. Tape 365/3650 is applied by hand over the two jumbo ends and smoothed down. Heat is applied via an iron that is at least 500°F and up to 800°F. The tape is ironed until the backing becomes a light tan. The jumbo is released and goes through the accumulator and coating process.

#### **SIC Code**

2952-0100 - Asphalt felts and coatings

2952-0101 - Roofing Materials

2952-0102 - Brick siding, asphalt

2952-0103 - Coating compounds, tar

2952-0105 - Insulating siding

### **Key Decision Makers**

Product Manager Production Manager Plant Manager

# For Additional Information

To request additional product information or to arrange for sales assistance, call 1-800-362-3550. Address correspondence to: 3M Industrial Business Customer Response Center, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55106. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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