

Technical Data Sheet

3M™ Electrically Debondable Tape
1100-075

Additional Info

Product Description

3M™ Electrically Debondable Tape 1100-075 is a single layer adhesive transfer tape (ATT) featuring an electrically debondable thin PSA. When bonded to 2 conductive surfaces, the 1100-075 is electrically debondable. The electrically debondable feature enables a clean, quick, and safe breaking of this adhesive bond to enable rework, repair, and recycling of critical components

Product Features

Reliable bonding strength in harsh conditions
Quick, clean removal with low voltages

Typical Physical Properties

Attribute Name	Value
Adhesive Thickness	0.075 mm
Adhesive Type	Specialty Acrylic
Tight Side Release Liner Thickness	0.075 mm
Color	Clear
Easy Side Release Liner Thickness	0.05 mm

Typical Performance Characteristics

Substrate: Stainless Steel
Test Condition: 10 mm/min

Attribute Name	Test Method	Value
Tensile Strength	ASTM D897	1.1 MPa

Substrate: Stainless Steel
Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Value
180° Peel Adhesion	ASTM D3330	0.75 N/mm [1]

[1] 300 mm/min (12 in/min)

Substrate: Stainless Steel
Temperature: 23 °C (73 °F)

Attribute Name	Test Method	Test Condition	Value
Electrical Debond Time (Peel)	ASTM D3330	30V	10 s [1]
Electrical Debond Time (Peel)	ASTM D3330	9V	30 s [1]
Electrical Debond Time (Pushout)	ASTM D897	30V	60 s [2]
Electrical Debond Time (Pushout)	ASTM D897	9V	90 s [2]

[1] Time at indicated voltage resulting in 180° peel test falls below 0.1 N/mm
[2] Time at indicated voltage resulting in tensile pushout test falls below 0.3MPa

Application Guidelines

The 3M™ Electrically Debondable Tape 1100-075 can be debonded by applying a low voltage across the two conductive, bonded surfaces. Current will move through the system causing debond on the low voltage side.

Steps to Debond
From a power source, attach the low potential lead to the substrate that will debond, and the high potenial lead to the substrate that will remain bonded.
Apply a small DC voltage, 5-50V, which will cause a current to flow through the system, creating a weak boundary layer at the PSA interface on the low potential side.
Afterwards, remove the power and open the bond.

Storage and Shelf Life

The shelf life of 3M™ Electrically Debondable Tape 1100-075 is 12 months from the date of manufacture when stored in the original packaging materials below 40°C (104°F). It is best practice to avoid low humidity and/or high temperature storage conditions.

Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is manufactured and is deemed commercially available from 3M. The COA contains the 3M specifications, test methods and test results for the products performance attributes that the product will be supplied against. Contact your local 3M representative for this product's COA.

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