



# Technical Data Sheet

## 3M™ UV Activated Tape 30020

### Product Description

UV-Activated Tape 30020 is a translucent, UV curable, high-strength bonding tape. This tape is initially tacky and has a middle carrier film for easy converting and application before curing. It is used to bond a wide range of materials, and it has a 10-minute open time after UV activation that enables bonding of opaque materials. This 200 um tape provides superior impact resistance to meet industry drop test requirements and has high bond strength while providing good removability.

Typical Applications: bonding of various electronic components (e.g., display, frame, back glass, speaker, camera lens, AR/VR, antenna, wearables, etc.).

### Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

### Typical Physical Properties

Attribute Name	Value
Adhesive Thickness	0.2 mm
Easy Side Release Liner Thickness	Clear PET 0.075 mm
Tight Side Release Liner Thickness	Clear PP 0.040 mm
Adhesive Carrier	Clear Polyvinyl Butyral (PVB) 0.013 mm
Color	Translucent

### Typical Performance Characteristics

Dwell Time: 24 h

Attribute Name	Temperature	Substrate	Value
Static Shear	70 °C (158 °F)	Stainless Steel	>10,000 min <sup>1</sup>
Overlap Shear Strength	23 °C (73 °F)	Aluminum	5.9 MPa <sup>2</sup>
Push Out Strength	23 °C (73 °F)	Stainless Steel	3.66 MPa <sup>3</sup>
Tensile Impact Total Energy	23 °C (73 °F)	Stainless Steel	0.65 J <sup>4</sup>
Tensile Impact Peak Force	23 °C (73 °F)	Stainless Steel	1,765 N <sup>4</sup>

<sup>1</sup> 25 mm x 25 mm, 1 x 1, 3 kg

<sup>2</sup> 25 mm x 6 mm, 1 x 0.25, 10mm/min

<sup>3</sup> 225 mm<sup>2</sup> ring, 10 mm/min

<sup>4</sup> 172 mm<sup>2</sup> ring, 3 kg

## **Handling/Application Information**

### **Application Techniques**

**UV Activation:** UV Dose at 365nm for 30020: 4J/cm<sup>2</sup>

### **Bonding Guidelines:**

3M™ UV-Activated Tape 30020 is initially tacky and can be laminated to the first substrate like a pressure sensitive adhesive tape (0.1 MPa pressure). The laminated adhesive is then UV activated with a 365 nm LED light source at the recommended dose above. Within the 10-minute open time, the second substrate is bonded with sufficient pressure (0.5–1.0 MPa for 15–60s) with optionally recommended heat (45–60°C). Curing and bond formation is complete within 24 hours.

### **Surface Preparation Guidelines:**

For maximum bond strength the surfaces should be thoroughly cleaned with a 50:50 mixture of isopropyl alcohol and water. Consult manufacturer's directions for use and precautions when using cleaning solvents. Ideal tape application is accomplished when temperature is between 21°C and 38°C (between 70°F and 100°F). Initial tape application to surfaces at temperatures below 10°C (50°F) is not recommended.

## **Storage and Shelf Life**

18 months from date of manufacture when stored in the dark or in the original packaging and stored between 16°C to 27°C (61°F to 81°F) and below 50% relative humidity.

## **Information**

**Technical Information:** The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

**Product Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

**Limited Warranty:** 3M warrants for 24 months from the date of manufacture that 3M™ Tape will be free of defects in material and manufacture. 3M MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. This limited warranty does not cover damage resulting from the use or inability to use 3M™ Tape due to misuse, workmanship in application, or application or storage not in accordance with 3M recommended procedures. AN APPLICATION WARRANTY EXPRESSLY APPROVED AND ISSUED BY 3M IS AN EXCEPTION. THE CUSTOMER MUST APPLY FOR A SPECIFIC APPLICATION WARRANTY AND MEET ALL WARRANTY AND PROCESS

REQUIREMENTS TO OBTAIN AN APPLICATION WARRANTY. CONTACT 3M FOR MORE INFORMATION ON APPLICATION WARRANTY TERMS AND CONDITIONS.

**Limitation of Remedies and Liability:** If the 3M™ Tape is proved to be defective within the warranty period stated above. THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M™ TAPE. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including negligence, warranty, or strict liability.

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