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MATERIAL SUBMITTAL PACKAGE

Custom Laser-Engraved Electrical Panel Labels & Nameplates

Rowmark DurMark UV-Stable Impact Modified Acrylic • UL 94 HB • RoHS Compliant
3M 467MP Adhesive Transfer Tape • 200MP High Performance Acrylic Adhesive

Interior & Exterior Use | Electrically Non-Conductive | Chemical & UV Resistant

PROJECT INFORMATION

Contractor:

Project Name:

Date:

TABLE OF CONTENTS

1 **Rowmark DurMark - Material Information Sheet**

Physical properties, specifications, certifications, and compliance data for the acrylic substrate material.

2 **Rowmark DurMark - Safety Data Sheet (SDS)**

Complete safety data including composition, first aid, handling, storage, and regulatory information.

3 **Rowmark - Chemical Resistance Guide**

Chemical compatibility reference for cleaning and environmental exposure of acrylic products.

4 **3M 467MP Adhesive Transfer Tape - Technical Data Sheet**

Performance data, environmental resistance, electrical properties, and application guidelines for the mounting adhesive.

Material Information Sheet

Material Description: DurMark™

Specifications	
Material:	Laminated UV-Stable Impact Modified Acrylic
Finish:	Matte | Non-Glare
Sheet Size:	24"x 48" (610 x 1219 mm)
Thickness: 2-Ply	1/16" (1.6mm)
Usage:	Interior, Exterior Signage | Control Panels | Industrial Tags
Engraving Method:	Laser | Rotating carbide

Physical Properties	Typical Values	ASTM Method
IZOD Impact Strength		
Notched at 73°F (22.78°C)	1.10ft lbs/in	D-256
Tensile Strength		
To break	5,500 psi	D-638
Elongation before break	50%	D-638
Flexural Strength		
Load to stretch outer surface 5%	10,300 psi	D-790
Electrical – Arc Resistance	10^12 Ohms/Sq. Meter	D-495
Rockwell Hardness	M45	D-785
Specific Gravity	1.15	D-792
Deflection Temperature		
Temperature at which material deflects .010" (.254mm) at 264 psi	180°F (79.44°C)	D-648
Coefficient of Thermal Expansion		
Inch/inch/°F	5.6×10^{-5}	D-696
Vicat Softening Point		
Temperature for needle to penetrate 1mm (90°F/hr, 2.2 lbs)	208°F (97.78°C)	D-1525

DurMark™ material softens sufficiently at approx. 180°F (82.22°C), which enables bending, should that be desired. It can also be drilled, sawed, sheared, and bonded to itself or other materials. Rowmark uses UV stable plastic resins and films in the manufacture of its products to prolong the useful life of the material when used in reasonable exterior conditions as such, Rowmark products will remain colorfast for 2+ years.

Electrically non-conductive, Insulative. Meets 10ˆ12 Ohms/square meter or higher in electrical resistivity, RoHS compliant (halogen-free), PVC-free, Formaldehyde and Phenol free and rated UL 94 HB. Material was judged as not contributing to the combustion of the base material.

Restriction of Hazardous Substances (RoHS)/ U.L. Certification/Halogenated Materials Rowmark has investigated the Restriction of Hazardous Substances (RoHS 3) directive issued by the European Union (directive 2015/863/EU) through our on-line research. This RoHS directive prohibits the distribution of products after June 2015, which contain the following materials; lead, mercury, cadmium, hexavalent chromium, poly-brominated biphenyls and poly-brominated diphenyl ethers. The directive appears to apply to all products that operate on electrical power and contain electronic components. Rowmark complies with the use and disclosure of all halogenated materials and does not incorporate poly-brominated biphenyls or poly-brominated diphenyl ethers in any of its products. Based on our audit, Rowmark plastic sheet products are in compliance with this directive and do not contain any of the elements noted above or in the candidate list in accordance with the referenced directive. Our related MSDS documents may be found in the Rowmark website (http://www.rowmark.com/MARK/MSDS.asp) and can be referenced for further information.

Terms & Condition of Sale
Rowmark warranty is limited to replacement of product only, and such warranty does not extend to the costs of any repeat labor or incidental costs. *LIMITED WARRANTY, WARRANTY DISCLAIMERS AND LIMITATIONS OF REMEDIES AND LIABILITIES:* Except as set forth above, Seller makes *NO OTHER WARRANTIES* concerning the products whatsoever.

Note: *The above information is given in good faith, but no warranty, express or implied, is given.*

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SAFETY DATA SHEET

SDS No: 0038

Section 1. Product and Company Identification

Product Name: DurMark™

Trade Name: Impact Modified Acrylic

Recommended Use: Signage, Other

Restrictions on Use: None

Manufacture:
Rowmark
5409 Hamlet Drive
Findlay, OH 45840

In Case of Emergency: Call: Medical:911
Poison Control: 800-589-3897

Information: Call: 1-877-ROWMARK
Email: techhelp@rowmark.com

Section 2. Hazard Identification

GHS Classification: Not Classified

GHS Label Elements: Not Applicable

GHS Rating

Health	5
Flammability	4
Instability	5
Special	

Other Hazards: Not Applicable

NEW GHS Hazard Categories
Category 1 = Severe Hazard
Category 2 = Serious Hazard
Category 3 = Moderate Hazard
Category 4 = Slight Hazard
Category 5 = Minimal Hazard

Section 3. Composition / Information on Ingredients

Name	CAS #	% by Weight	OHSA
P (EA/MMA)	Proprietary	50-54	N
Acrylic Styrene Copolymer	Proprietary	35-50	N
Methyl methacrylate	80-62-6	< 0.5	Y
Ethyl acrylate	140-88-5	< 0.1	Y

The substance(s) marked with a "Y" in the OSHA column are idenfitied as hazardous chemicals according to the criteria of the OSHA Hazardous Communication Standard (29 CFR 1910.1200).

While this material is not classified as hazardous under Federal OSHA regulations, this SDS contains valuable information critical to the safe handling and proper use of this product. This SDS should be retained and available for employees and other users of this product.

The components of this product are all on the TSCA Inventory list. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

Section 4. First Aid Measures

Inhalation:	Dust and process vapors may be irritation to the nose, throat and respiratory tract. Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get Medical attention.
Eyes:	Dust, fines and process vapors may irritate the eyes. Immediately flush eyes with water for at least 15 minutes. Get medical attention.
Skin:	Exposure to molten plastic may cause thermal burns. If molten material comes in contact with the skin, cool under ice water or a running stream.
Ingestion:	No adverse health effects expected from ingestion.

Section 5. Fire-Fighting Measures

Suitable Extinguishing Methods:	Dry Chemical, Water Spray, Foam Carbon Dioxide. Avoid using direct streams of water on molten burning material.
Unsuitable Extinguishing Methods:	NONE known.
Hazards During Fire-fighting:	Carbon monoxide, carbon dioxide, original monomer other hydrocarbon oxidation products.
Protective Equipment:	Wear self-contained breathing apparatus and protective suit.

Section 6. Accidental Release Measures

Personal Precautions:	See Section 8 - Exposure Controls / Personal Protection.
Environmental Precautions:	No Special environmental precautions required.

Methods and Materials for Containment and Cleaning Up

Spill / Leak:	Containment of this material should not be necessary. Sweep up or gather material and place in appropriate container for disposal.

Section 7. Handling and Storage

Handling:	Keep away from heat, flame and strong oxidizing agents.
Storage:	Keep away from heat, sparks, and flame. Store in cool place in original container and protect form sunlight.

Section 8. Exposure Control and Personal Protection

Exposure Limits:

1) Effects of Acute Exposure: Inhalation of vapors may result in irritation of upper respiratory tract

2) Effects of Chronic Exposure:

3) OSHA Permissible Exposure Lim

US. ACGIF Threshold Limit Values

Form:	Inhalable particles
Time weighted average	10 mg/m3
Form:	Respirable particles
Time weighted average	3 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Form:	Respirable fraction
PEL:	5 mg/m3
Form:	Total dust
PEL:	15 mg/m3

US. OSHA Table Z-3 (29 CFR 1910.1000)

Form:	Respirable fraction
Time weighted average	15 ppm
Form:	Total dust
Time weighted average	50 ppm
Form:	Respirable fraction
Time weighted average	5 mg/m3
Form:	Total dust
Time weighted average	15 mg/m3

4) Carcinogen Potential:

Engineering Controls:

Use recommended safe handling practices to minimize unnecessary exposure.

General room ventilation is adequate for storage and ordinary handling.

Use local exhaust at points of fume generation or if dusty conditions prevail.

Personal Protective Equipment:

Wear safety glasses with side shields or chemical goggles to prevent eye contact.

Have eye-washing facilities readily available where eye contact can occur.

Wear impervious gloves and protective clothing to prevent skin contact.

Section 9. Physical and Chemical Properties

Appearance:	Various Colors	Vapor Pressure:	Not Applicable
Odor:	Slightly acrylic	Vapor Density:	Not Applicable
pH:	Not applicable	Relative Density:	1.19 g/cm3
Melting Point / Freezing Point:	No data available	Solubility (ies):	Not Applicable
Boiling Point:	No data available	Partition Coefficient (N-Octanol/W	No data available
Flash Point:	Not applicable	Auto-Ignition Temperature:	739°F (393°C)
Evaporation Rate:	Not applicable	Decomposition Temperature:	>572°F (> 300°C)
Flammability (solid, gas):	See GHS in section 2	Viscosity:	No data available

Upper Explosive Limit:	Not applicable	Specific Gravity:	1.19 Water = 1 (liquid)
Lower Explosive Limit:	Not applicable	Percent Volatile:	0%

Section 10. Stability Reactivity

Reactivity:	No data available
Chemical Stability:	Stable
Possibility of Hazardous Reactions:	Hazardous polymerization does not occur
Conditions to Avoid:	Avoid flames, welding arcs, potential ignition sources, or other high temperature sources, prolonged contact with acids, alkalis and strong oxidizing agents
Incompatible Materials:	None under normal conditions of use
Hazardous Decomposition Products:	Carbon oxides, Acrylates, Methacrylates, Hazardous organic compounds
Combustion Products:	No data available

Section 11. Toxicological Information

Irritation Effects

Eye Irritation:	Solid particles may cause transient irritation from mechanical abrasion.
Skin Irritation:	Not expected to cause skin irritation. Molten material may cause thermal burns.
Inhalation:	Not a likely route of exposure. Process fumes may cause irritation.
Ingestion:	May cause a choking hazard if swallowed.

Data for PLEXIGLAS® DR®-101 ACRYLIC RES

Acute Toxicity

Dermal:	Acute toxicity estimate > 5,000 mg/kg
Inhalation:	4 h Acute toxicity estimate > 10 mg/L

Data for Acrylic copolymers (Proprietary)

Other Information

The information presented is from representative materials in this chemical class. The results may vary depending on the test substance.

Effects due to processing releases or residual monomer: Possible cross sensitization with other acrylates and methacrylates.

Data for Acrylic styrene copolymers (proprietary)

Other Information

The information presented is from a representative material with a similar structure. The results vary depending on the size and composition of the test substance.

Effects due to processing releases or residual monomer: Possible cross sensitization with other acrylates and methacrylates.

Additional Toxicological Information

When used and handled according to specifications, the product does not have any harmful effects according to research and information provided by suppliers.

Carcinogenic Effect

International Agency for Research on Cancer (IARC) : Group3 NOT classifiable as to its carcinogenicity to humans.

Section 12. Ecological Information

Eco-toxicity:	Toxicity to fish - No relevant studies identified.
Persistence and Degradability:	This material is not expected to be readily biodegradable.
Bio-accumulate Potential:	Product is not likely to accumulate in biological organisms.
Mobility in Soil:	This Product has not been found to migrate through soils.
Other Adverse Effects:	This Substance is not in Annex I of Regulation (EC) 2037/2000 on substances that deplete the ozone layer.

Section 13. Disposal Considerations

Disposal Methods

Product Recommendation:

1. Recycle (Reprocess) if product has not been contaminated so as to make it unsuitable for its intended use.
2. Disposal through controlled incineration or authorized waste dump in accordance with Local, State or Federal Regulations.

Uncleaned Packaging Recommendation:

1. Disposal must be done in accordance with Local, State, or Federal Regulation.

Section 14. Transportation Information

UN Number:	Not Relevant

UN Proper Shipping Name:	Not Relevant
Transportation Hazard Class(es)	
DOT:	Not Regulated/classified
ADR / RID:	Not Regulated/classified
IMDG:	Not Regulated/classified
ICAO/IATA	Not Regulated/classified
Packing Group:	Not Applicable
Environmental Hazards:	Not Relevant
Transportation in Bulk (According to Annex II of MARPOL 73/78 and IBC Code):	Not Relevant
Special Precautions for User:	No special precautions

Section 15. Regulatory Information

Hazard categories under criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	N	Delayed (Chronic) Health	N
Sudden Release of Pressure	N	Reactive	N
Fire	N		

The components of this product are all on the TSCA inventory list.

INGREDIENT RELATED REGULATORY INFORMATION:

	SARA REPORTABLE QUANTITIES	CERCLA RQ	SARA TPQ
	Ethyl acrylate	1000 LBS	N/A
	Methyl methacrylate	1000 LBS	N/A
	P (EA/MMA)	N/A	N/A

SARA TITLE III, SECTION 313

This product does contain chemical(s), which are defined as toxic chemicals under and subject to the reporting requirements of, Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372. See section 2.

Chemical Name	CAS-No.	De minimis concentration	Reportable Threshold:
Ethyl acrylate	Not assigned	Not assigned	Not assigned
Methy methacrylate	Not assigned	Not assigned	Not assigned
2-Propenoic acid, ethyl ester	140-88-5	0.10%	10000 lbs (otherwise used (non-manufacturing/processing)) 25000 lbs (manufacturing and processing)

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)-Reportable Quantity (RQ)

Chemical Name	CAS-No.	Reportable quantity
2-Propenoic acid, 2-methyl-, methyl ester	80-62-6	1000 lbs
2-Propenoic acid, ethyl ester	140-88-5	1000 lbs

Chemical Inventory Status

EU. EINECS	EINECS	Conforms to
United States TSCA Inventory	TSCA	The components of this product are all on the TSCA Inventory
Canadian Domestic Substnaces List (DSL)	DSL	All components of this product are on the Canadian DSL.
China. Inventory of Existing Chemical Substances in China (IECSC)	IECSC (CN)	Does not conform
Japan. ENCS - Existing and New Chemical Substances Inventory	ENCS (JP)	Does not conform
Japan. ISHL-Inventory of Chemical Substances	ISHL (JP)	Does not conform
Korea. Korean Existing Chemicals Inventory	KECI (KR)	Conforms to
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	PICCS (PH)	Conforms to
Australia Inventory of Chemical Substances	AICS	Conforms to

OSHA HazCom:	This Material is not Hazardous b OSHA Hazardous Communication Standard 29 CFR 1910.1200

SARA 313:

Immediate Hazard: NO	**Fire Hazard**: NO	**Reactivity Hazard**: NO
Delayed Hazard: NO	**Pressure Hazard**: NO	

WARNING:
This product can expose you to chemicals including styrene, which is known to the State of California to cause cancer.
For more information go to www.P65Warnings.ca.gov

Section 16. Other Information

NOTICE: The information presented in this Safety Data Sheet is based on data considered to be accurate as of the date this Safety Data Sheet was prepared. However, no warranty or representation, expressed or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In additional, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.

Revision Date: January 2020

The following chemicals can generally be safely used on Rowmark products with an acrylic cap layer under moderate stress at ambient temperature conditions:

Calgon® Bath Oil
Freon TF Cleaner
Mr. Clean® Cleaner
Soft Scrub® Cleanser
Clorox® Bleach
Glass Plus® Cleaner
Propylene Glycol
Spic & Span® Powder
Fantastic® Cleaner
Liquid Comet® Cleaner
Sodium Hydroxide
Soap and Water
Formula 409® Cleaner
Mineral Oil
Sodium Hypochlonte

The following chemicals may be used with caution in low-stress and/or short-duration exposure at ambient conditions:

Ammonia
Ethyl Alcohol (≤40%)
Isopropyl Alcohol (≤50%)
Pinesol® Cleaner
Brake Fluid
Gasoline
Lestoil® Cleaner
VM&P Naphtha
Chlorine (10%)
Dow Disinfectant Kerosene
Lysol® Basin, Tub Bathroom Cleaner & Tile Cleaner

The following chemicals may cause crazing, cracking, discoloration, or dissolving of acrylic articles and are generally not recommended:

Acetic Acid
Butyl Alcohol
Sulfuric Acid
Turpentine
Benzene
Acetone
Chlorinated Solvents
Toluene
White Cap® Cleaner
Aromatic Solvents
Lacquer Thinner
Lysol® Spray
Xylene

For additional information, please contact your authroized Rowmark distributor.

Technical Data Sheet

3M™ Adhesive Transfer Tape 467MP

V-5 | Last Revision: September 2025 | Supersedes: April 2025

Product Description

3M™ Adhesive Transfer Tape 467MP utilizes 3M High Performance Acrylic Adhesive 200MP, which makes it a popular choice for graphic attachment and general industrial joining applications. It provides outstanding adhesion to metal and high surface energy plastics. This adhesive provides some initial repositionability for placement accuracy when bonding to plastics. It also performs well after exposure to humidity and hot/cold cycles.

Product Features

• Up to 400°F short-term heat resistance

• Excellent solvent resistance

• Excellent shear strength to resist slippage and edge lifting

Typical Physical Properties

Attribute	Value
Adhesive Type	Acrylic
Liner	58# Polycoated Kraft Paper (PCK)
Liner Thickness	0.11 mm (4.2 mil)
Total Tape Thickness (ASTM D3652)	0.06 mm (2.3 mil)

Typical Performance Characteristics — 90° Peel Adhesion

Dwell Time: 72 h | Backing: 2 mil Aluminum Foil | Test Method: ASTM D3330

Substrate	Temperature	Value
Stainless Steel	23°C (73°F)	10 N/cm (92 oz/in)
Stainless Steel	70°C (158°F)	16.7 N/cm (153 oz/in)
ABS	23°C (73°F)	2.4 N/cm (22 oz/in)
Acrylic (PMMA)	23°C (73°F)	7 N/cm (64 oz/in)
Aluminum	23°C (73°F)	7 N/cm (64 oz/in)
Glass	23°C (73°F)	9.9 N/cm (90 oz/in)
Polycarbonate (PC)	23°C (73°F)	7.8 N/cm (71 oz/in)

Static Shear

Substrate: Stainless Steel | Sample: 25 x 25 mm | 1000 g load | ASTM D3654

Temperature	Value
23°C (73°F)	10,000 min (test terminated)

70°C (158°F)	10,000 min (test terminated)

Temperature Resistance

Condition	Temperature	Duration
Short Term	204°C (400°F)	60 min
Long Term	149°C (300°F)	10,000 min

Typical Environmental Performance — 90° Peel Adhesion

Substrate: Stainless Steel | Backing: 2 mil Aluminum Foil

Dwell	Condition	Value
24 h	Control	9.5 N/cm (87 oz/in)
1 h	Gasoline	8 N/cm (73 oz/in)
1 h	MEK	7.7 N/cm (70 oz/in)
1 h	Weak Acid (pH 4)	8.4 N/cm (77 oz/in)
1 h	Weak Base (pH 10)	7.2 N/cm (66 oz/in)
72 h	Salt water (5 wt%)	9.5 N/cm (87 oz/in)
72 h	Oil 10W30 @ 49°C	13.9 N/cm (127 oz/in)
100 h	Water	9.5 N/cm (87 oz/in)
7 d	90% RH @ 32°C	11.9 N/cm (109 oz/in)
2,000 h	UV (ASTM G-154)	11.4 N/cm (104 oz/in)
72 h	Temperature Cycling	12.3 N/cm (112 oz/in)

Environmental Characteristics Summary

• **Humidity Resistance:** Minimal effect on performance. No significant reduction after 7 days at 90°F and 90% RH.

• **UV Resistance:** Adhesive is not adversely affected by outdoor exposure when covered by a nameplate.

• **Water Resistance:** Immersion has no appreciable effect. High bond strength maintained after 100 hours at room temperature.

• **Temperature Cycling:** High bond strength maintained after cycling through 158°F, -20°F, and 73°F.

• **Chemical Resistance:** Parts hold securely after exposure to oil, mild acids and alkalis when properly applied.

• **Lower Temperature Limit:** Glass transition at -31°F (-35°C). Lowest service temperature is -40°F (-40°C).

Electrical and Thermal Properties

Property	Test Method	Value
Thermal Conductivity	ASTM C518	0.158 W/m/K
Dielectric Constant (1 KHz)	ASTM D150	3.69
Dielectric Strength	ASTM D149	1.35
Insulation Resistance	Mil-I-46058C	>1.72 x 10<super>13</super> Ω
Breakdown Voltage	—	2,200 V

Application Examples

• Long-term bonding of graphic nameplates and overlays to metal and high surface energy plastics in aerospace, medical, industrial equipment, automotive, appliance, and electronics markets.

• Bonding metal nameplates and rating plates across multiple industries.

• Bonding graphic overlays for membrane switches and mounting switches to equipment surfaces.

• High speed processing in medical, telecommunications, and electronics markets.

Application Techniques

For maximum bond strength, the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane (for oily surfaces) or isopropyl alcohol for plastics.

Pressure during lamination (1.5–20 psi recommended) and during final part installation (10–15 psi) is necessary to allow the adhesive to come into direct contact with the substrate.

Ideal adhesive application temperature range is 60°F (15.6°C) to 100°F (38°C). Application is not recommended if the surface temperature is below 50°F (10°C) because the adhesive becomes too firm to adhere readily.

Storage and Shelf Life

Store under normal conditions of 60° to 80°F and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use within 24 months from date of manufacture.

Recognition / Certification

TSCA: Defined as an article under the Toxic Substances Control Act; exempt from inventory listing.

UL: Recognized by Underwriters Laboratories under Standard UL 969, Marking and Labeling Systems.

ISO: Manufactured under a 3M quality system registered to ISO 9001 standards.

Source: 3M™ Adhesive Transfer Tape 467MP Technical Data Sheet, V-5, September 2025. Full document available at multimedia.3m.com

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