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The adhesive tape engineers®

650 Family High-Performance Acrylic Tapes

- Features & Benefits
- Characteristics
- Adhesion Studies
- Where they fit
- Applications



- 654M: Double-Coated PET 2-mils each side
- 654T: Double-Coated Tissue 5-mils (total thickness including adhesive & tissue)
- 653: 3-mil Transfer Tape

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• Combines excellent shear and peel properties.

Features & Benefits

- Good adhesion to many low surface energy substrates.
- Proven bonding to a variety of foams.
- Moisture-stable 74# poly-coated Kraft.
- A cut above the 250 Series.

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Foam Bonding Studies (Subjective Bond Determination)

- Foamex LP 180-30CP after 72 hours @ 150°F
- Foamex Ether after 72 hours @ 150°F
- Foamex Super Seal after 72 hours @ 150°
- 1.8# Ether UL after 72 hours @ 150°F
- Ester after 72 hours @ 150°F
- 7# PVC after 72 hours @ 150°F
- Vinyl Nitrile after 72 hours @ 150°F

Excellent Excellent Excellent Excellent Excellent Good Excellent

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LSE Bonding Studies

(Units in oz./inch width)

•	Powder Coated Painted Surfaces	
	– Initial	.58
	 After 24 Hours @ RT 	78
•	TPO (Average of 2 Grades Tested	
	– Initial	54
	– After 24 Hours @ RT	80
•	40% Talc-Filled Polypropylene	
	– Initial	50
	– After 24 Hours @ RT	80
•	Mica-Filled Polypropylene	
	– Initial	55
	– After 24 Hours @ RT	88

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Other Adhesion Studies (Units in oz./inch width)

•	Aluminum
	– Initial
	 After 24 Hours @ RT60
•	Stainless Steel
	– Initial5
	 After 24 Hours @ RT7
•	Glass
	– Initial
	 After 24 Hours @ RT6
•	Nylon 66
	– Initial
	 After 24 Hours @ RT 8

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Versus the 250 Family

- Improved peel with no sacrifice in shear values.
- Slightly more aggressive with higher loop tack
- Improved bonding to many low surface energy substrates.
- Demonstrated bonding to various foams.
- Multiple constructions for greater versatility.
- Refer to charts for specific information.

The adhesive tape engineers® Versus 353M

- Slightly lower peel but improved shear values.
- Slightly less aggressive with lower loop tack
- Improved bonding to many low surface energy substrates.
- Multiple constructions for greater versatility.

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Foam Bonding Comparison

	654M-74-54	256M-74-54	353M-74-54
Armacell ECF-400 after 72 hrs @150ºF	Excellent	Fair to Poor	Poor
Armacell Ensolite® MLC - Black with Heat Assist	Very Good	Very Good	Very Good
Armacell Ensolite® MBO - with Heat Assist	Excellent	Very Good to Excellent	Very Good to Excellent
Armacell Ensolite® IUO - with Heat Assist	Excellent	Very Good to Excellent	Very Good to Excellent
Armacell Ensolite® IUT - with Heat Assist	Very good to Excellent	Fair to Poor	Good to Very Good

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654M-74-54 256M-74-54 353M-74-54

Polyester based Powder Coated Paint	74 oz./in. width	62 oz./in. width	62 oz./in. width
Urethane Based Powder Coated Paint	78 oz./in. width	70 oz./in. width	75 oz./in. width
Fluoropolymer Based Powder Coated Paint	89 oz./in. width	42 oz./in. width	35 oz./in. width
20% Talc-Filled Polyproplyene	75 oz./in. width	38 oz./in. width	50 oz./in. width

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654M-74-54 256M-74-54 353M-74-54

Other Bonding Comparisons

ABS	85 oz./in.	71 oz./in.	55 oz./in.
	width	width	width
Polycarbonate	102 oz./in.	91 oz./in.	57 oz./in.
	width	width	width



- Test the 650 Family when there is a need for:
 - High temperature performance.
 - Adhesion to low energy substrates.
 - Excellent shear and peel properties.
 - Cost effective bonding.
 - 654T for conformability and tear-ability.