



3M™ **IJ-180CV3-10**

2 mil Pressure-Activated Cast Vinyl
3M Comply™ Air Release · Long-Term (8 Years)

COMMON USES

Vehicle Wraps, Windows, Commercial Vehicles, Watercrafts & More

LONGEVITY

Long-Term (8 Years)

PRINT SIDES

Single-Sided

FINISHING OPTIONS

Contour Cut

Gloss, Matte or No Laminate

ENVIRONMENT

Indoor & Outdoor

SIZE OPTIONS

Custom Size



3M COMPLY™ AIR RELEASE

Invisible Cv3 channels for fast, bubble-free installs.



CONFORMS & STRETCHES

Up to 130% over rivets, curves & corrugations.



8-YEAR DURABILITY

Long-term, removable indoor & outdoor performance.

Technical Data Sheet

PROPERTIES

- 2 mil white cast vinyl film with a luster finish
- Excellent hiding power
- Pressure-activated adhesive for easy sliding, tacking, snap-up and repositioning
- Flexible; conforms to compound curves, corrugations and rivets
- Stretches up to 130% (a 10 in / 25 cm piece can stretch to 15 in / 39 cm) without primer or relief cuts while maintaining lift resistance
- Comply™ Adhesive air-release channels for fast, easy, bubble-free installations
- Air-release channels are non-visible with improved air release
- Removable with heat and/or chemicals

PHYSICAL CHARACTERISTICS

Material	Cast Vinyl	Adhesive	Pressure-Activated, air-release
Film Color	White, Opaque	Adhesive Color	Gray
Thickness (no adhesive)	2 mil (0.05 mm)	Liner	Polyethylene-Coated Paper
Thickness (with adhesive)	3-4 mil (0.08-0.10 mm)	Tensile Strength	5 lb/in @ 73°F (0.9 kg/cm @ 23°C)

Adhesion — typical 24 hours after application

ABS	4-5 lb/in (0.72-0.89 kg/cm)	Chrome	4-5 lb/in (0.72-0.89 kg/cm)
Acrylic Enamel	3-4 lb/in (0.54-0.72 kg/cm)	Aluminum, Anodized	7-8 lb/in (1.26-1.43 kg/cm)
Aluminum, Etched	5-6 lb/in (0.89-1.08 kg/cm)	Fruehauf Pre-Painted	3-5 lb/in (0.54-0.89 kg/cm)

Chemical resistance

- Resists mild alkalis, mild acids and salt
- Excellent resistance to water (does not include immersion)
- Resists occasional fuel spills

APPLICATION CHARACTERISTICS

Surface Type Flat (with & without rivets), simple curves, compound curves & corrugations

Substrate Type ABS resins, aluminum, chrome, glass, fiberglass reinforced plastics, paint (verify adhesion on powder-coated or water-based paints), fiberglass with gel coat

Application Method	Dry	Applied Shrinkage	0.015 in (0.4 mm)
App. Temp — flat, no rivets	40°-100°F (4°-38°C)	App. Temp — curves/rivets	50°-100°F (10°-38°C)
App. Temp — compound/watercraft	60°-90°F (16°-32°C)	Exposure Temp (after app.)	-65° to +225°F (-60° to +107°C)

Graphic Removal Removable with heat and/or chemicals from most substrates within the warranty period at 50°F (10°C) minimum air & substrate

EXPOSURE TYPES

U.S. Vertical Graphic face is +/- 10° from vertical

U.S. Non-Vertical Greater than 10° from vertical and greater than 5° from horizontal — includes non-vertical surfaces of vehicle wraps and fleet truck/trailer graphics

U.S. Horizontal Graphic face is +/- 5° from horizontal

U.S. Desert Southwest Outdoor graphics exposed to solar energy more than half of daylight hours in AZ, NM and desert areas of CA, NV, UT & TX are subject to reduced warranties

WORKING WITH AIR-RELEASE CHANNELS

- Air-release channels are a characteristic of films with Comply adhesive; films designated Cv3 offer the ultimate in invisible air-release channels
- Channels are damaged and air removal is affected if you remove and attempt to change or reapply liners
- For best results, always work from the center out to the edges so trapped air can exit through the channels; if channels are closed off and air is trapped, use an air-release tool

PRESSURE-ACTIVATED ADHESIVE

The pressure-activated adhesive offers smooth sliding into position, fast finger-tacking to check position, and easy snap-up and repositioning when you need it.

The snap-up and reposition feature is lost when...

- Firm pressure with a squeegee or other application tool is applied
- Application temperatures are above 100°F (38°C), even if only light finger pressure was used for tacking
- Any part of the film is removed from the original liner and reapplied to the same or another liner

UNSUITABLE END USES

Do not apply graphics to...

- Stainless steel
- Watercraft when the graphic is below the static water line, or watercraft graphics that are not edge-sealed
- Painted substrates with poor paint-to-substrate or paint-to-paint bond
- Substrate surfaces that are not clean and smooth

Do not use where removal is required from...

- Applications with poor paint-to-substrate adhesion
- Existing graphics that must remain intact (damage may occur during removal)
- Watercraft, or outdoor horizontal applications

Do not use for graphics subjected to gasoline vapors or spills, including those at or on gas pumps, automobile fuel-tank ports, watercraft or top-feeding petroleum tankers. For watercraft: apply above the static water line, cut at seams, and seal all edges and seams.

PERFORMANCE, MAINTENANCE & REMOVAL

Factors that affect graphic performance life

- Surface texture
- Application methods
- Angle and direction of sun exposure
- Environmental conditions
- Cleaning or maintenance methods

Maintenance & cleaning

Use a cleaner designed for high-quality painted surfaces. The cleaner must be wet, non-abrasive, without strong solvents, and have a pH value between 3 and 11.

Removal

Removal requires heat and/or chemicals; the ease and rate of removal depends on a number of factors. A chemical remover system is available for graphics printed with solvent-based ink.