

DaeCoat™ 550

Water Washable Thermally Stable Protective Coating and Adhesive

Application Guide

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RPT.DaeCoat550.pdf

Daetec, LLC
Diversified Applications Engineering Technologies
1227 Flynn Rd. Unit 310 Camarillo, CA 93012
(805) 484-5546 www.DAETEC.com



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Outline

1. Product Description
2. Product Specifications
3. Recommended Tooling
4. Recommended Process Conditions



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1. Product Description

- 100% Solids system
- UV-Curable Coating
- Can be used as coating or adhesive
- Tunable viscosity by simple dilution with DIW or polar solvent
- Easily cleaned with hot DIW



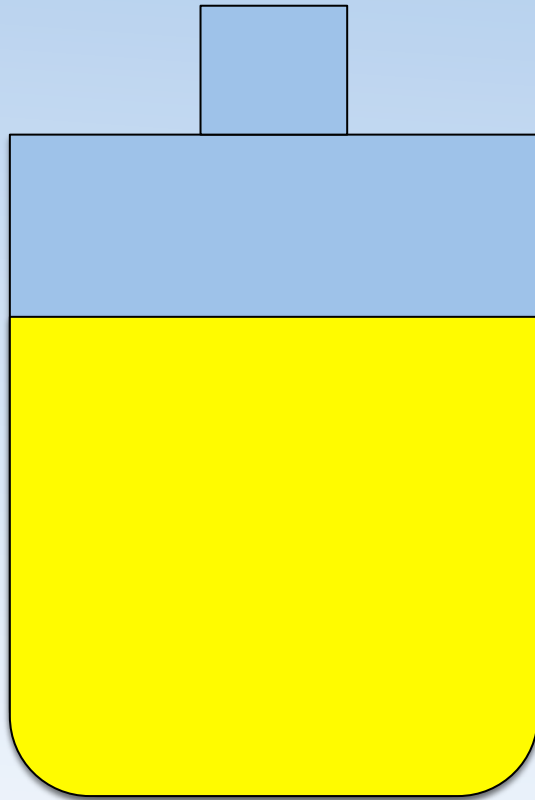
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2. Product Specification

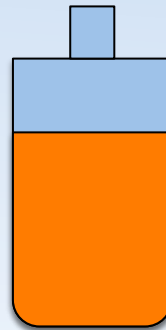
Parameter	DaeCoat 550
Appearance	Clear, yellow-green liquid
% Solid	100%
Viscosity	*TBD*
Solvent	N/A
Compatibility	DIW, IPA, Other Polar Solvents
Thermal Resistance	< 350°C
Coating Method	Slit, Spin or Spray

DaeCoat 550 Part A & B



Part A: Resin

Addition of Part B
=
Mass of Part A x 5%



Part B: UV Initiator

- Once mixed, the approximate pot life is < 1 hour @ 25°C,
- Cold storage (~5°C) will increase pot life <1 month,
- Recommend to work under yellow light to increase mixture stability

3. Recommended Tooling



Spin Coater



UV Cure Equipment



Slit or Spray Coater



Wet Bench or Spray Tool

4. Recommended Process Conditions

Coating Conditions

Coating Method*	Cure Type	Soft Bake	Thickness (um)
Spin, Spray or Slit	UV*, < 1-2 min	N/A	≤ 10 μm

*UV Curing conditions vary depending on customer process

Bonding Conditions

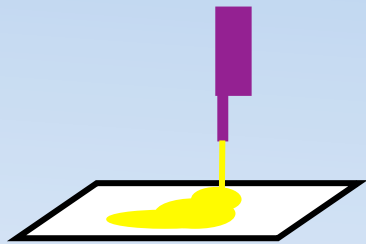
Bond Type	Bonding Conditions	Debond Conditions	Cleaning Conditions**
Wet Bond	25°C, < 1-2 min < 1 PSI (Vacuum)	Laser Lift Off or Dice and Wet Bench	Immersion, DaeClean™ 150 or DaeClean™ 250 < 70°C , < 15 min



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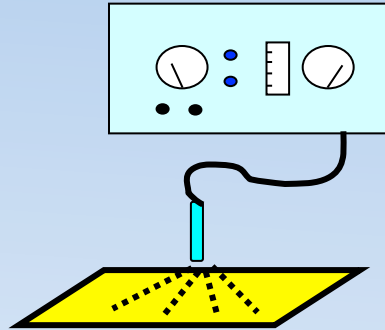


Recommended Process Conditions As Coating



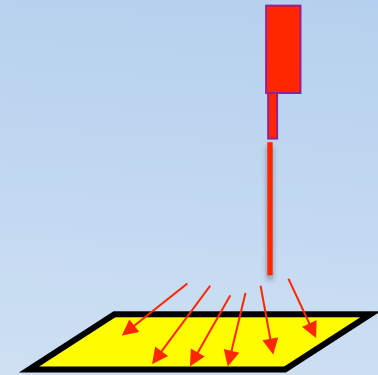
Coating

Slit, Spin,
Spray



UV Cure

UV Conditions vary
dependning on
customer's process
conditions



Customer Process

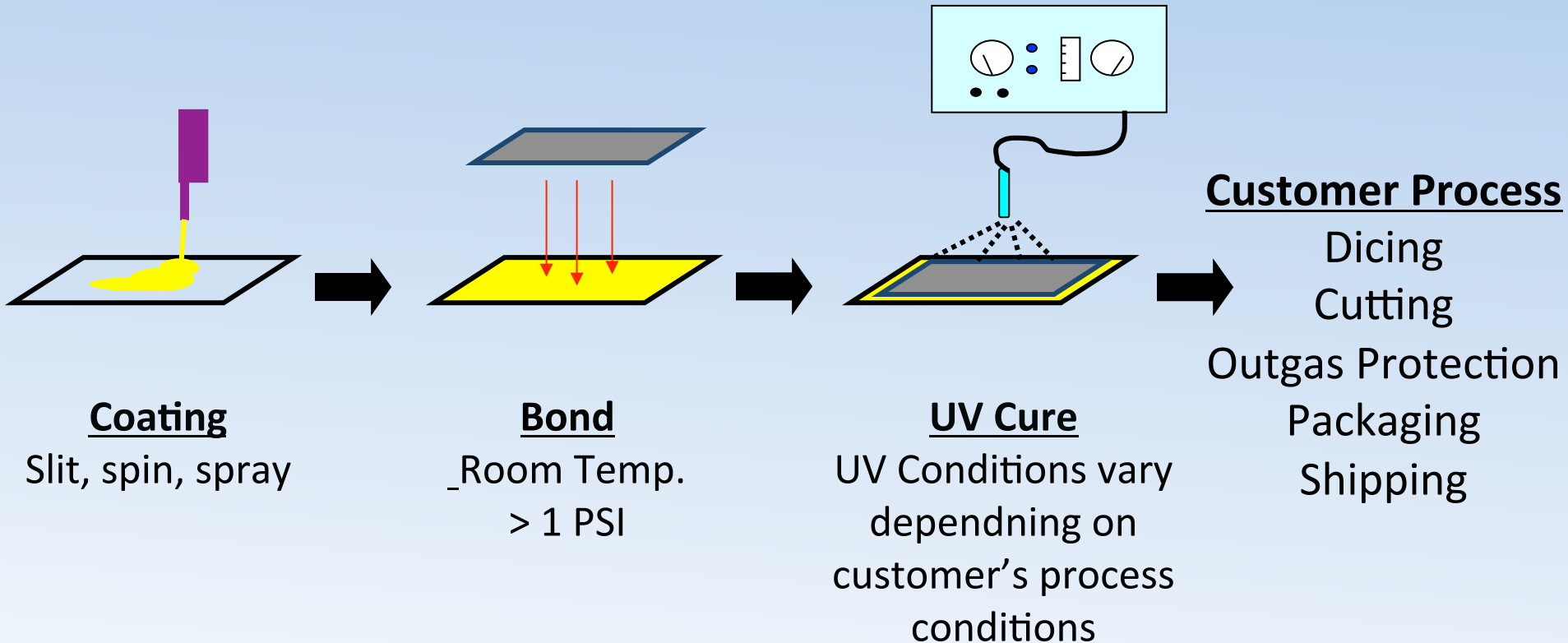
Dicing
Cutting
Outgas Protection
Packaging
Shipping



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Recommended Process Conditions

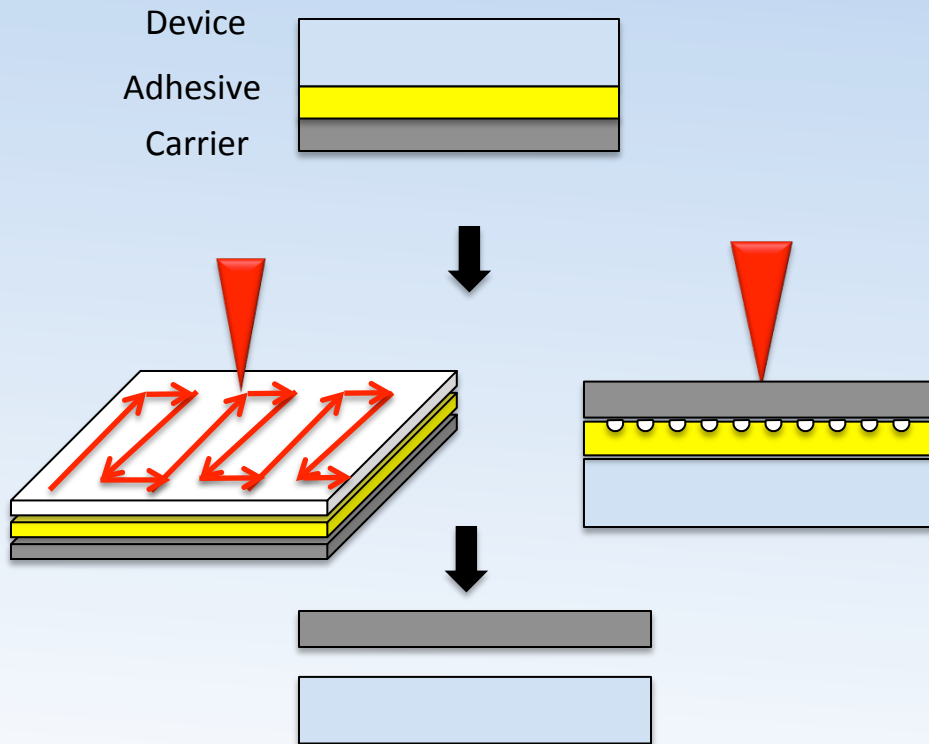
As Adhesive - Bond



Recommended Process Conditions

As Adhesive - Debond

Debond Process: Laser Ablation

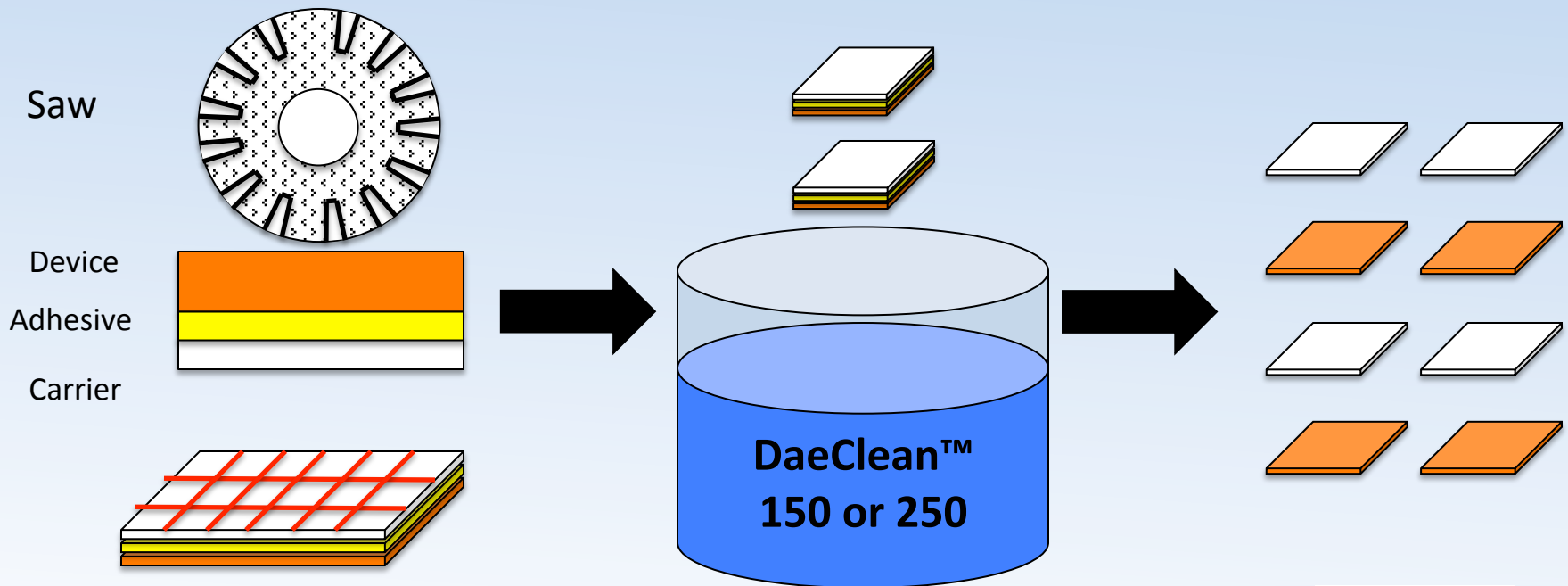


Recommended Process Conditions

As Adhesive - Debond

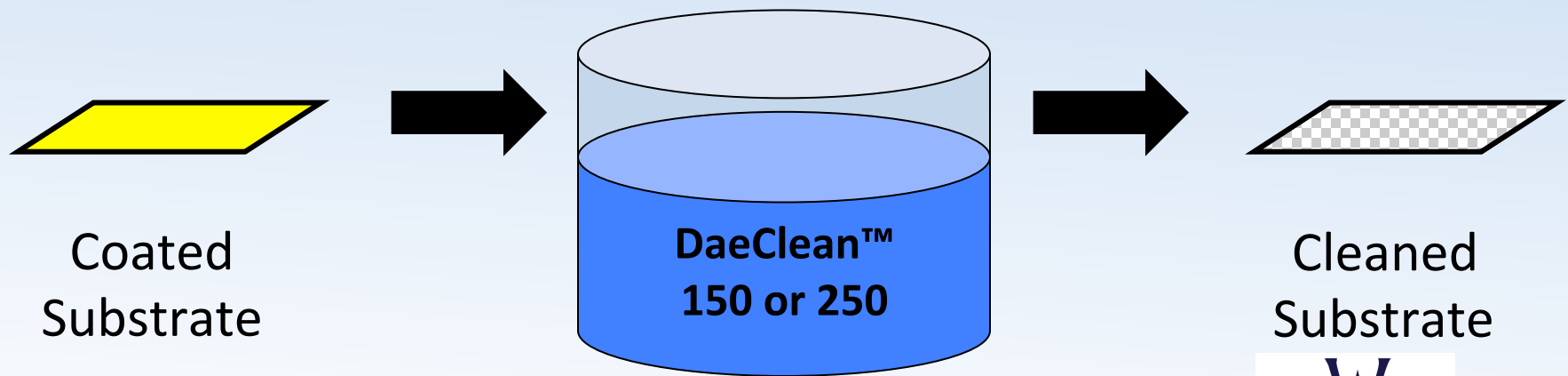
Debond Process: Dice and Wet Bench

- Wet Bench Cleaning available for 1cm² size substrates



Recommended Process Conditions - Cleans

- DaeCoat™ 550 is removed from substrate using DaeClean™ aqueous-based detergents
 - < 15min (thickness < 20 microns)
 - Temperature : 60-70°C



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Contact for More Information

- Water Wash Technologies, A Division of DAETEC, LLC www.waterwashtech.com
- DAETEC provides development, consulting, and technical training/support to solve manufacturing problems and introduce new options of doing business.
- Diversified Applications Engineering Technologies (DAETEC)
Camarillo, CA (USA) (805) 484-5546
jmoore@daetec.com; www.DAETEC.com



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