

# Topcoat developments — improving functionality to suit changing challenges in labelling

Avery Dennison  
Labels and Packaging Materials

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Topcoat developments — improving functionality

## Presenters



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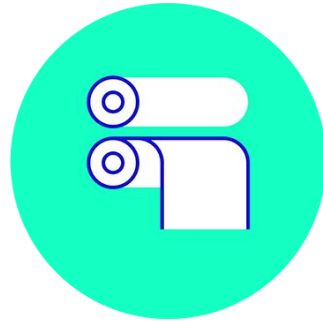
[Rina.lupu.matas@eu.averydennison.com](mailto:Rina.lupu.matas@eu.averydennison.com)

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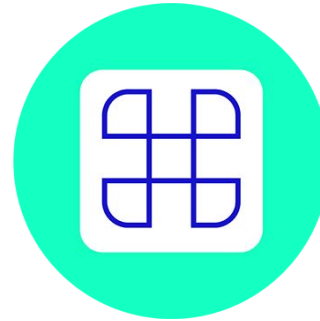
## Overview



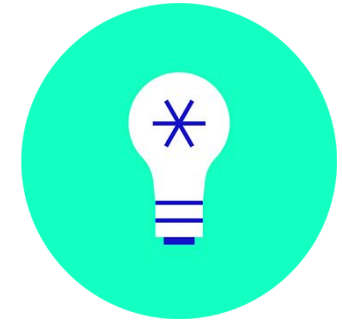
**Materials**



**Printability**



**Functionality**






**Coating  
Developments**

Topcoat developments — improving functionality

# Agenda

Key:

Commercial   
Not yet commercial   
Under development 

## Overview of label face films — adaptations to today's needs:

### Pharma




- Luminescence 

### Security




- Watermark 
- Tamper evidence 

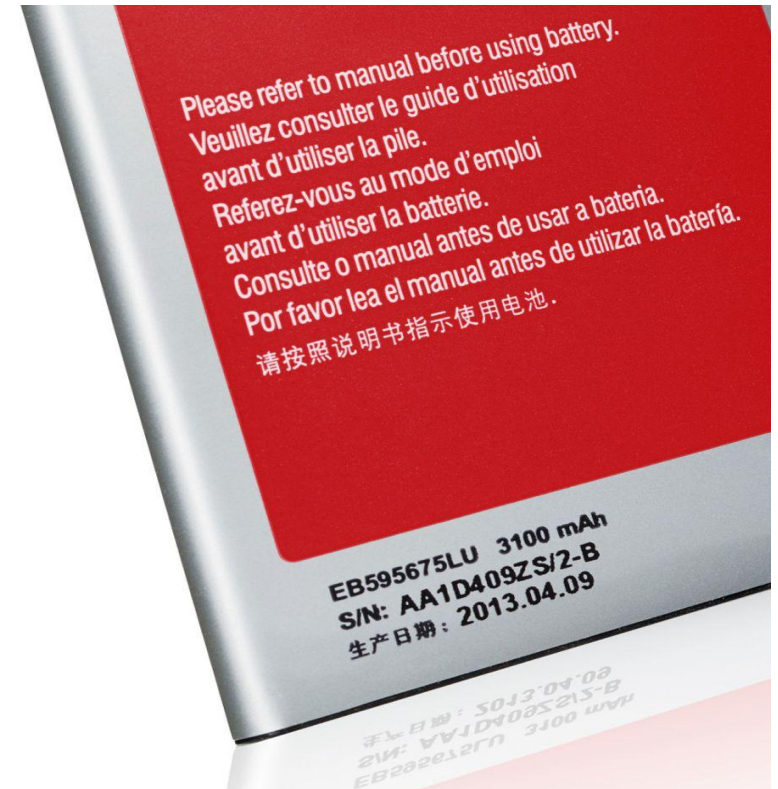
### Medical devices

### Industrial and durable labelling

- Flame retardant 
- Vulcanization resistance 
- On-line laser etching 

### New capabilities

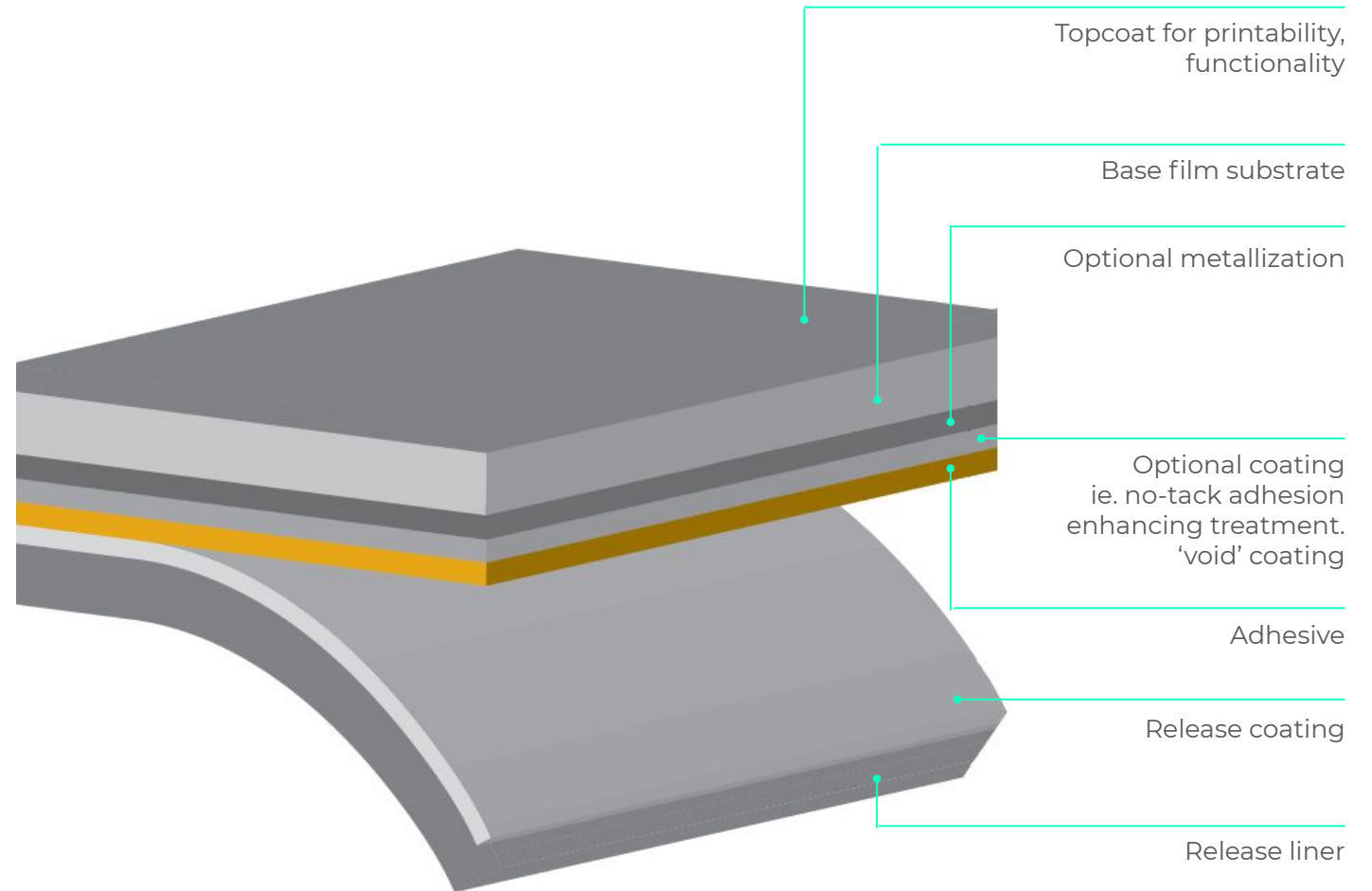
- Barrier coatings 
- Indicative coatings 
- Transferable coatings 



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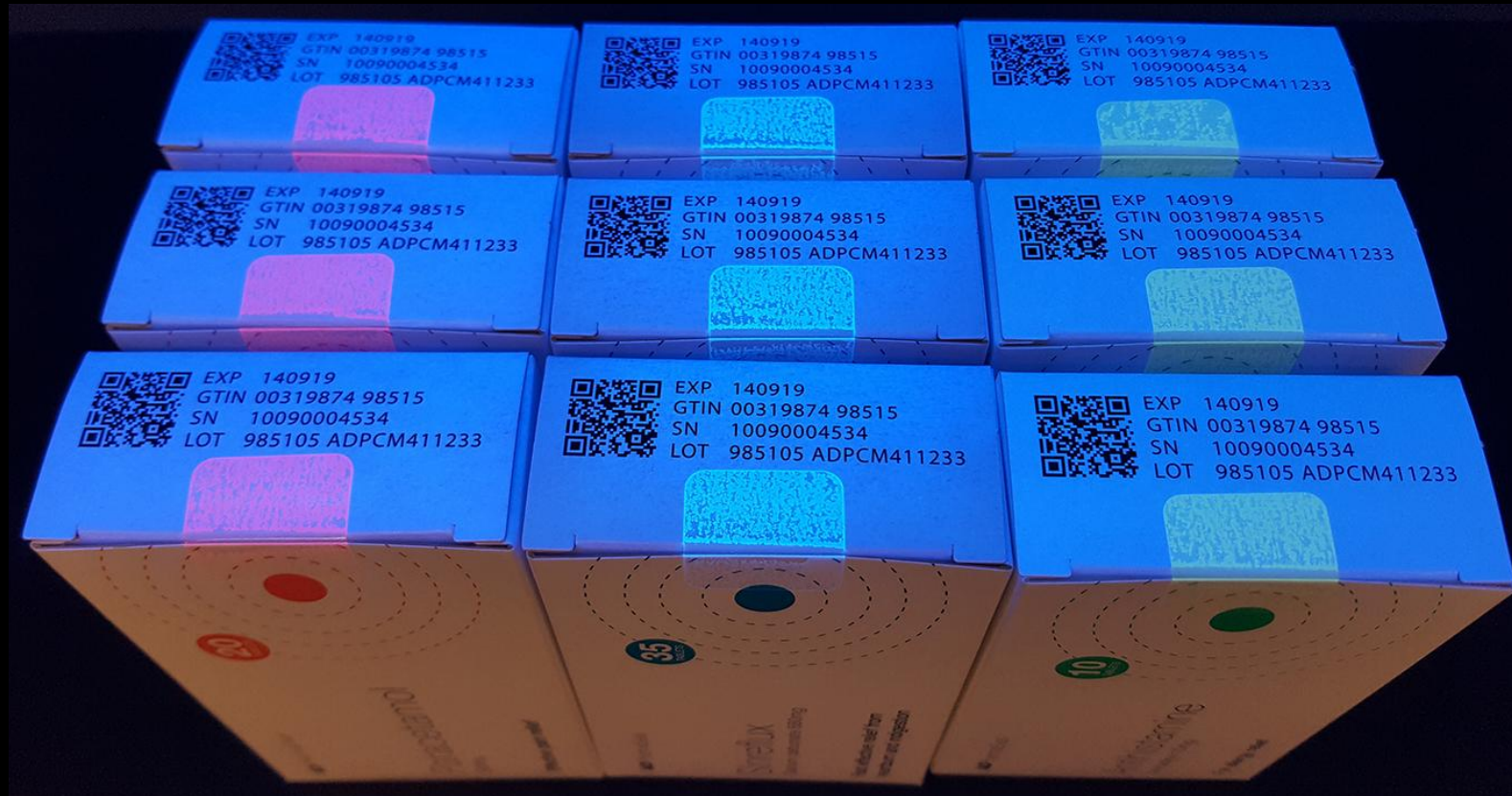
## Overview of label face films — adaptations to today's needs

The topcoat is applied to the face film by atmospheric coating, and upgrades the printability and/or performance of the label.



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# Simplifying pharma compliance with luminescent topcoat



## Pharma — fulfilling sealing indication requirements

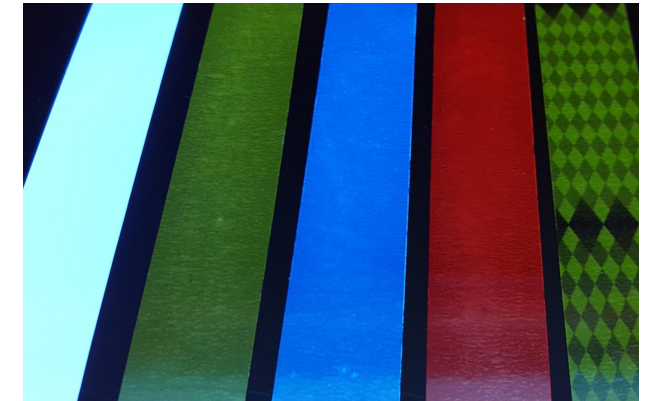


- 01.** Pharma manufacturers need to identify the presence of clear primary packaging seals and labels on dispensing lines.

This is most easily done by luminescent reaction to UV light.



- 02.** Until now, converters either add a UV varnish (tricky additional step) or use adhesive with luminescent additives, which limits the range of adhesive choices and functionality.



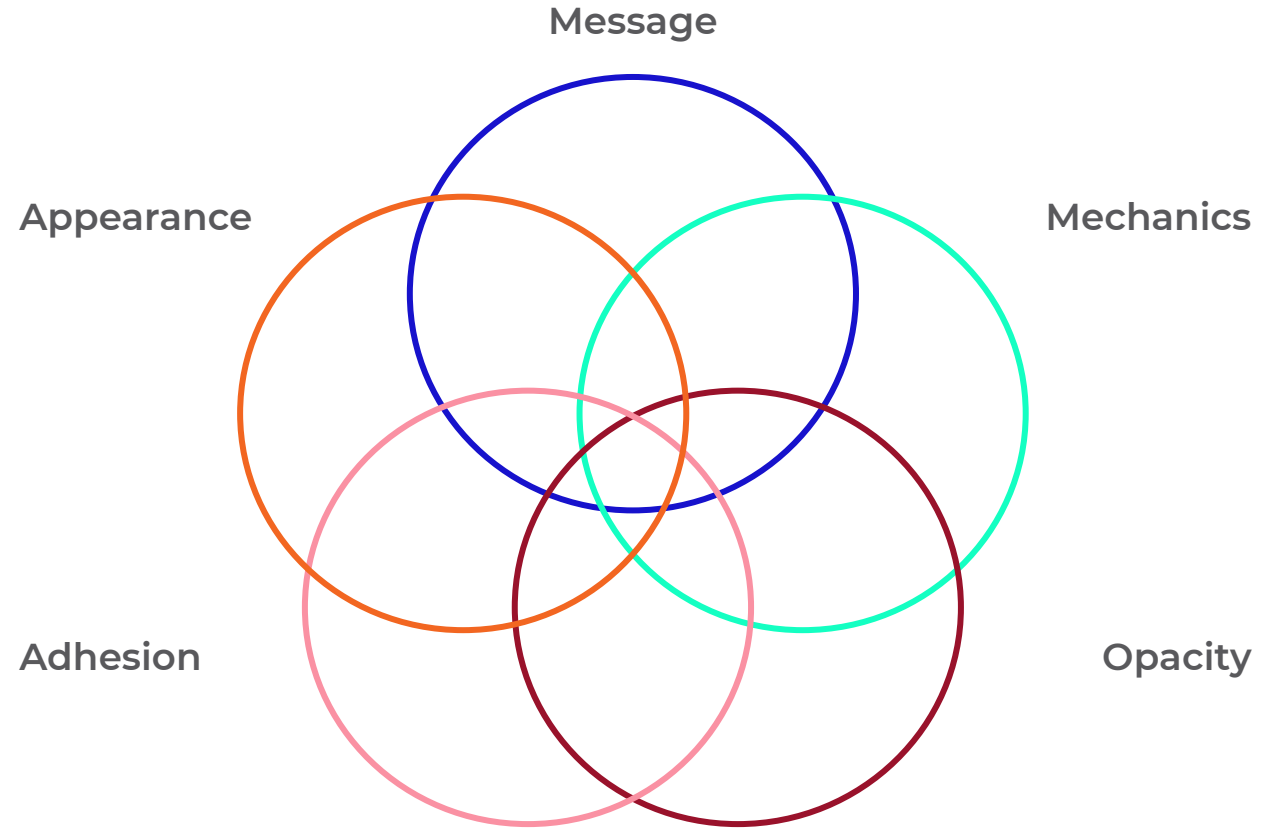
- 03.** The Luminescent range has a printable topcoat already impregnated with UV-reactive luminescent additives.

This simplifies the converting process and enables a wider adhesive portfolio.

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## Tamper evident — variables

Vast standard portfolio, but welcome custom development integrating the range of variables.





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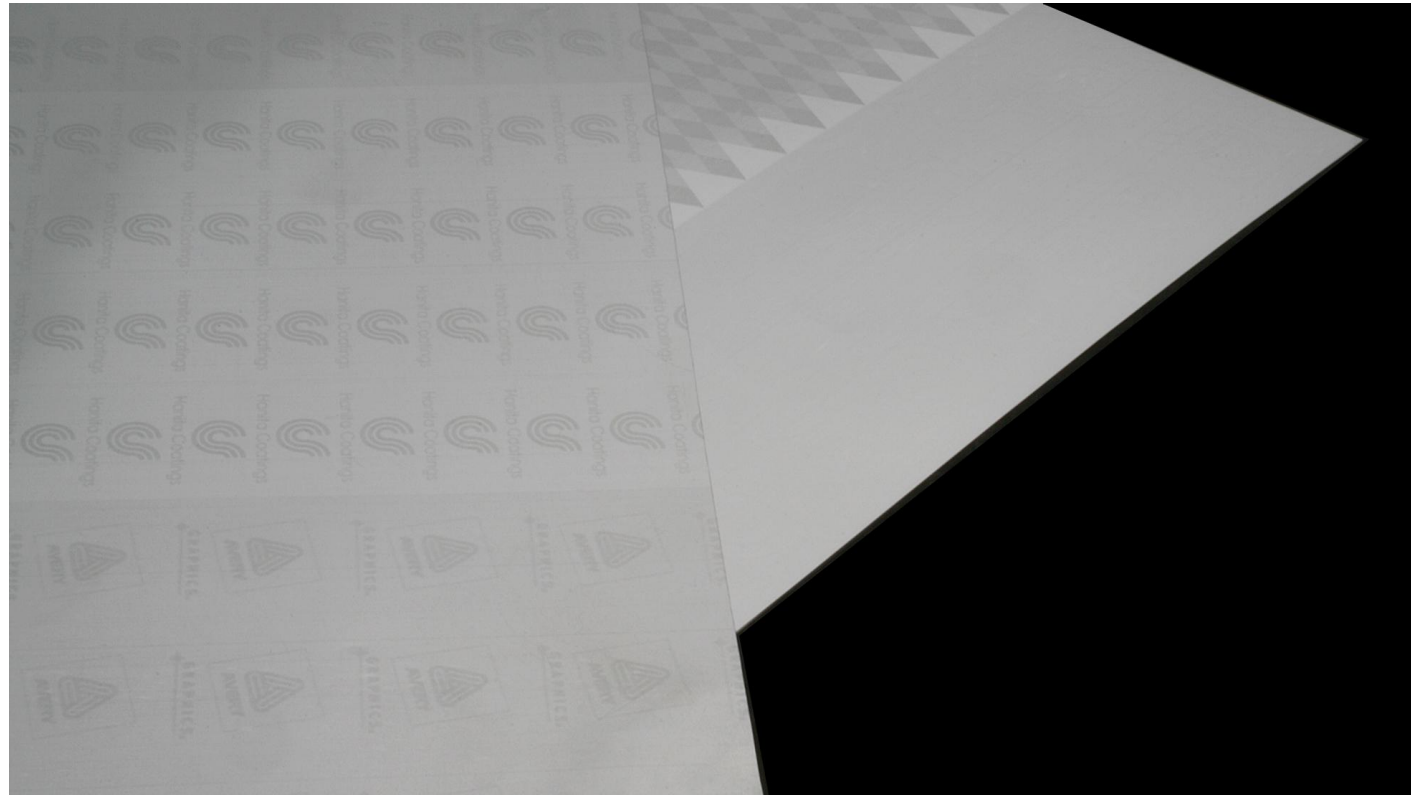
## Tamper evident messages can also incorporate luminescence

The UV reactive message gives a further level of identification to the label.

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## Security — ‘Watermark’

Upgrade the security of Lumi with a ‘watermark’ imprint of logo or message for brand identification.



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## Medical devices

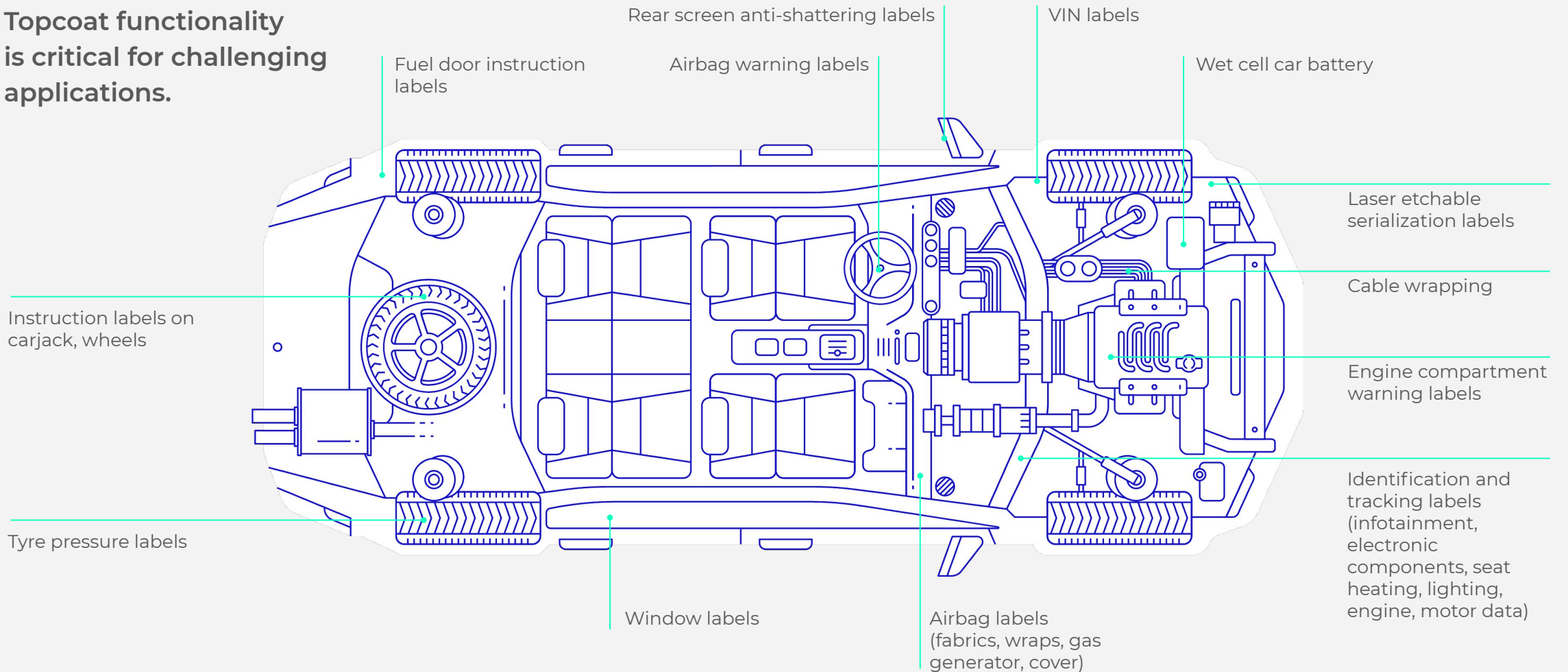
- Antibacterial topcoat
- Chemical resistance



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# Industrial, automotive and durable labeling

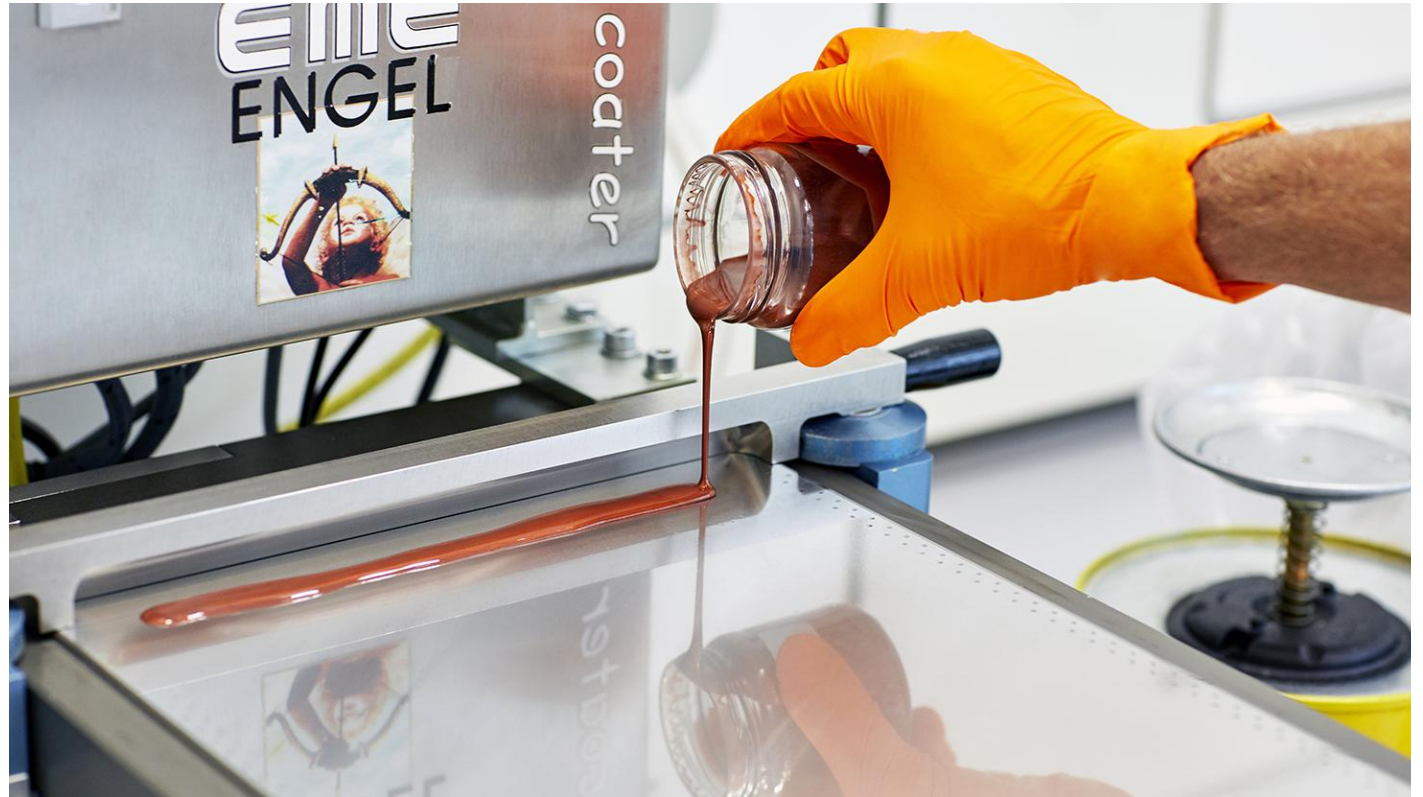
**Topcoat functionality is critical for challenging applications.**



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## New topcoat capabilities — bright ideas for the future

The latest topcoat developments deliver economic solutions.



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## Barrier coatings

Proprietary clear (or metallized) laminates that provide transparent barrier to oxygen and moisture. Ideal for packaging for perishables, pharma, medical and industrial applications.



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## Indicative coatings

### Example:

Water-ingress labels for consumer electronics, showing distinct and irrevocable color change on direct contact with liquid.

Other developments:

- Chemicals
- Gas
- Heat.



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## Transfer coatings

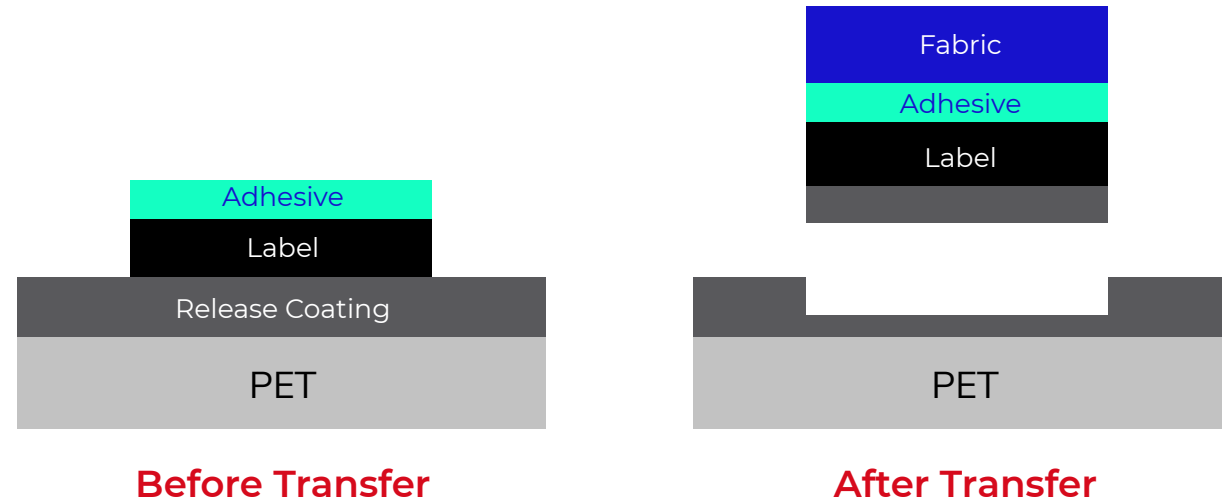
- Heat transfer labels for no-tag printed clothing, or automotive fabric labeling
- Transfer of metallization for IR heat reflection, or appearance.





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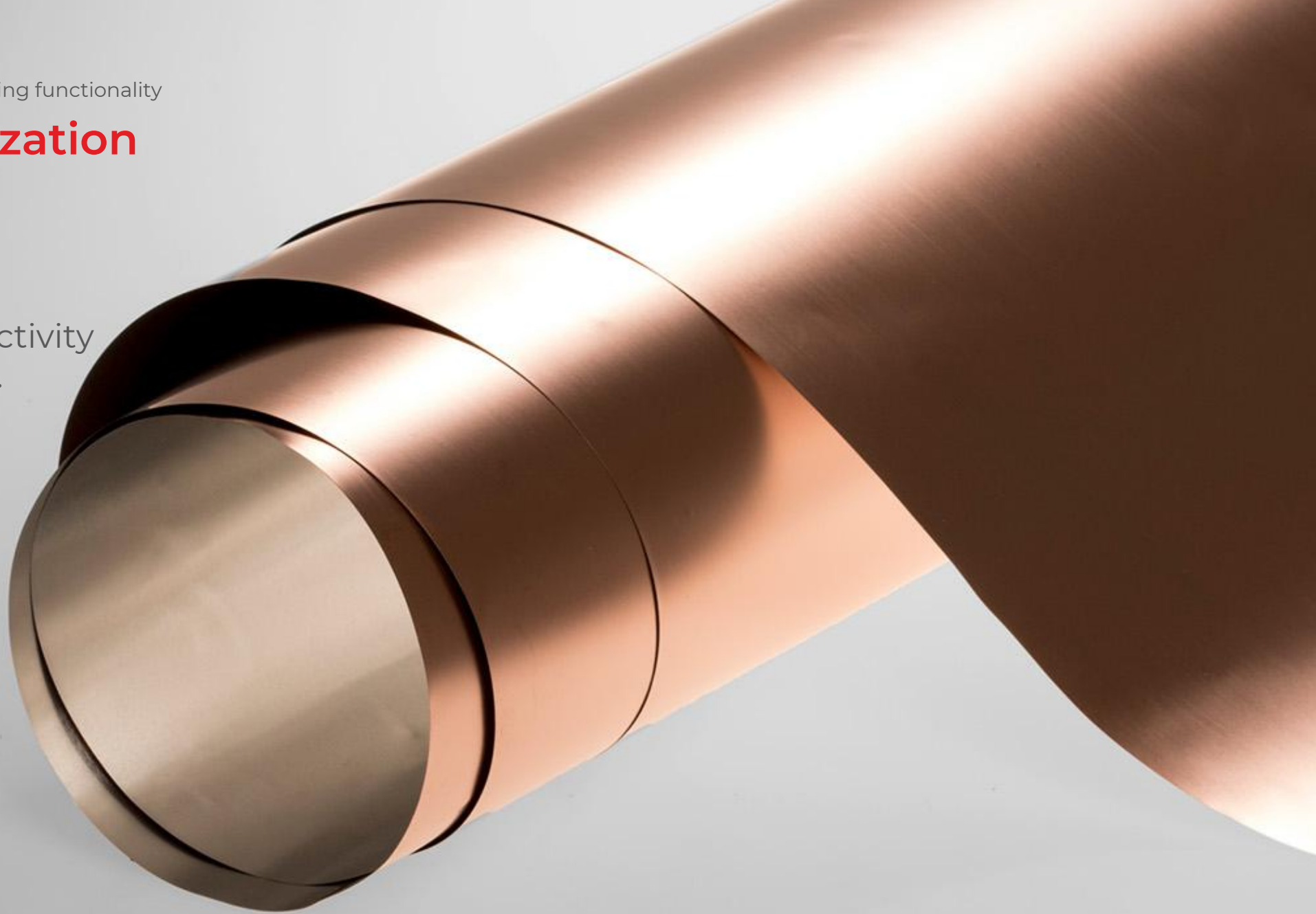


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## Copper metallization

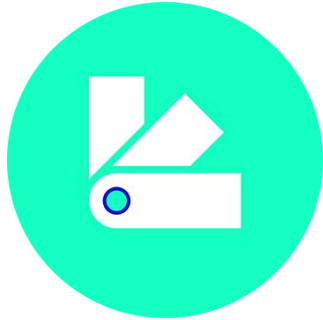
Enhances:

- Electrical conductivity
- Heat dissipation.



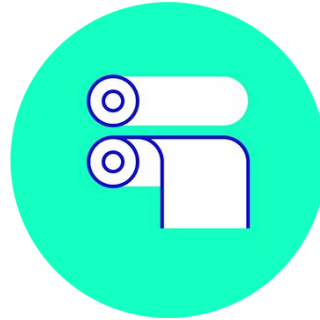
# Summary

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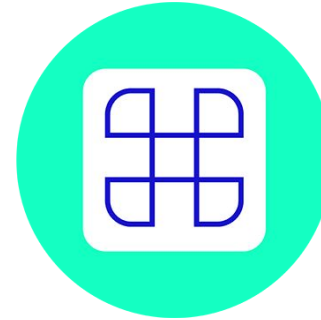
## Materials

- PET, BOPP, PE, PU, Synthetic paper
- 10-175μ
- clear, white, matte, gloss, metallized




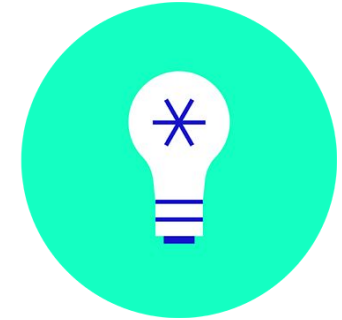
## Printability

- Digital
- Conventional
- Laser Etch \*



## Functionality

- Flame retardant
- Chemical and heat resistant
- Antibacterial 
- Security
- Identification
- Outdoor
- Scratch resistant



## Coating Developments

- Barrier
- Indicative 
- Transfer
- Copper 

# Thank You

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