Avery Dennison TC7007

The next generation of topcoat technology

AVERY DENNISON

Avery Dennison heralds the next generation of topcoats

Increasing your plant productivity

Topcoat technology plays a vital role in the appearance and durability of product labels, while the composition and thickness of topcoats play a major role in determining printing speeds.

The Avery Dennison research team has successfully formulated the next generation TC7007 topcoat, a competitive and productive solution that delivers superior results every time.

In a breakthrough in bonding technology, we developed the TC7007 topcoat solution. TC7007 is a revolutionary product that delivers a broad range of benefits to converters and their clients. Now available on nearly all Avery Dennison film facestocks, TC7007 is set to improve your plant productivity and the profitability of your business.

- Faster production times
- Higher shelf appeal
- More durable finishes
- Greater resistance to water and chemicals

New topcoat radically improves printing speeds

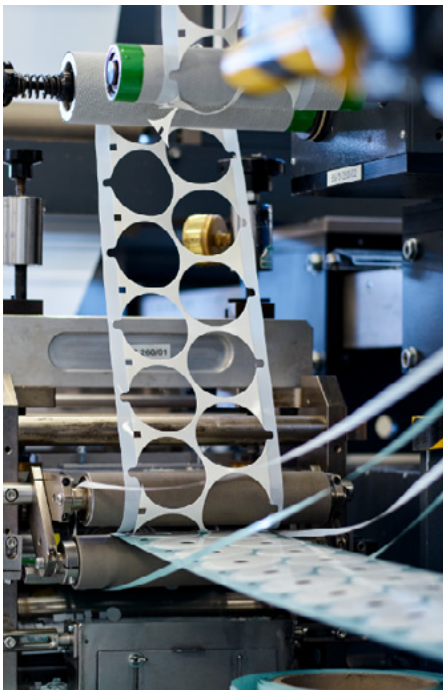
While costs remain the same

The TC7007 topcoat has been proven to increase printing speeds by up to four times compared to old-generation products. This leap in productivity has been accomplished thanks to the radically improved ink anchorage of Avery Dennison bonding technology.

TC7007 not only firmly adheres to films – it also forms a permanent chemical bond with inks. This results in a highly durable and stable label with extremely rapid printing times.

The chemical bond also allows thicker ink coats, which in turn increases shelf appeal. Tests have shown that with TC7007, ink coats can be achieved of up to twice the thickness of those realised with old-technology topcoats. Excellent ink anchorage also reduces the need for overvarnish.

Importantly for converters, this has been achieved without any increase in material costs, allowing you to produce a better, more appealing product in a shorter time frame, without any additional expense.



The unique benefits of the industry's first polymerisable topcoat

Enhanced Shelf Appeal

The unique bonding technology of TC7007 is a major advance in topcoat performance. Developed to increase printer productivity, the TC7007 topcoat uses patented technology that is only available on Avery Dennison topcoated products.

Outstanding ink adhesion is achieved by creating permanent chemical bonds between the inks and the topcoat, while an exceptional finish is achieved using UV Flexo technology.

The TC7007 topcoat is a non-hazardous, emulsion-based polymer that can directly replace old topcoating material. It delivers instant advantages, as there is no need to recalibrate systems or change printing techniques.

With TC7007, converters can increase ink layer thickness to produce a higher-quality finish, with enhanced shelf appeal. Further benefits are delivered when converters take advantage of quicker printing speeds to lower their total applied cost. This provides their customers with a more attractive product at a more competitive price.

TC7007 has been extensively market-tested and is ideal for most conventional printing techniques including:

- UV Flexo
- Laser Printing
- Offset
- Screen
- Thermal Transfer
- Solvent Gravure
- UV Inkjet
- Xeikon

Breakthrough bonding technology for UV-curable inks

A durable and attractive finish

TC7007 products outperform conventional topcoated films due to the unique technology that chemically bonds UV-curable inks with the topcoat.

In conventional topcoats, the interfaces between the film, topcoat and ink are relatively weak and easily broken. Peeling back a piece of sticky tape from a conventional label will remove part of the ink to leave an unsightly, blemished label.

The Avery Dennison research team has developed a unique solution that radically improves film and ink adhesion.

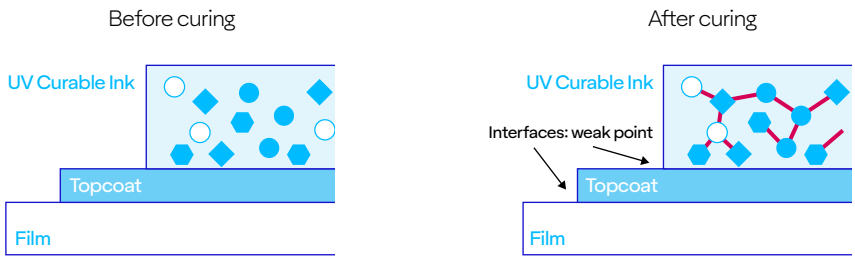
A dedicated polymer in the TC7007 topcoat strongly bonds with the base film to create a durable, printable material. The revolutionary development, however, is that TC7007 also contains a reactive resin. This topcoat resin bonds with resins and thinners in the inks to create a strong chemical adhesion during the curing process.

This unique chemical bonding also makes the printed label exceptionally resistant against water and common chemicals including acetone, alcohols and oils. Unlike old-technology topcoats that relied on surface tension differences to achieve anchorage, TC7007's chemical bonding technology removes the need for an extra corona treatment to improve anchorage.

The result is a durable, attractive finish. Simply take the tape test and witness the difference.

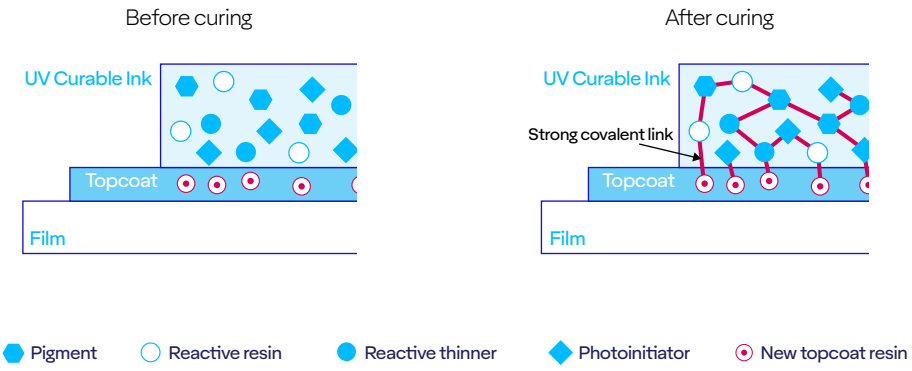
Old technology

Old-technology topcoats formed weak interfaces with the film and ink layers. These weak points could be easily broken to create unsightly, blemished labels.



TC7007 technology

TC7007 uses a dedicated polymer to firmly bond with the base film. Reactive resins in the topcoat then chemically bond with the inks during the curing process to create a strong, durable and attractive label.



High-performance topcoat for popular thermal transfer ribbons

Excellent imprint quality and mechanical resistance

The TC7007 topcoat provides an excellent printable surface for a wide variety of thermal transfer ribbons. Extensive market research ensures that TC7007 is fully compatible with nearly all major ribbons and ribbon-printing machines used on the market today. The table below shows a list of Thermal Transfer Printers for which it has been qualified with regard to imprint quality and mechanical resistance.

For additional information on these results, please contact Avery Dennison's Technical Support department or your local sales representative.

Manufacturer	Printer/resolution/head type	Ribbon/quality
Toshiba	Toshiba B-SX5/300/NE	AS1/resin
Toshiba	Toshiba B-SX5/300/NE	AG2/wax-resin
Toshiba	Toshiba B-SA4/300/FH	AS1/resin
Toshiba	Toshiba B-SA4/300/FH	AG3/wax-resin
Armor	Zebra ZM400/300/FH	APR6
Armor	Zebra ZM400/300/FH	AXR7+
Armor	Avery Dennison AP 5.4/300/FH	APR6
Armor	Avery Dennison AP 5.4/300/FH	AXR7+
Union Chemicar	Zebra 110 XIII/200/FH	RU-ST/resin
Imak	Zebra 110 XIII/200/FH	RI-ST/resin
Union Chemicar	Zebra 110 XIII/200/FH	RU-P/resin
Zebra	Zebra 110 XIII/200/FH	4800/resin
Zebra	Zebra 110 XIII/200/FH	5095/resin
Imak	Zebra 110 XIII/200/FH	WRI-P/wax-resin
Union Chemicar	Zebra 110 XIII/200/FH	WRU-P/wax-resin
Zebra	Zebra 110 XIII/200/FH	3200/wax-resin

Products with TC7007

Code	Description
Rigid Films	
BW0227	PP50 Top White / S692N / BG40Wh Imp
BW0174	PPNG Top Pearlized White /S692N / BG40Wh Imp
BW7004	PP60 Top White / S692N / BG40Wh Imp
BW7015	PP60 Top White / S692N / BG40Wh
BW0062N	PPNG Top Trans / S692N / BG40Wh Imp
BW0266A	PP50 TC Clear / S692N / BG40Wh Imp
Conformable Films	
BW0064	PE85 Top White / S692N / BG40Wh Imp
BW0065	PE85 Top Trans / S692N / BG40Wh Imp

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