

# Tyvek® Solar™ W20

## The standard for thermal radiation control

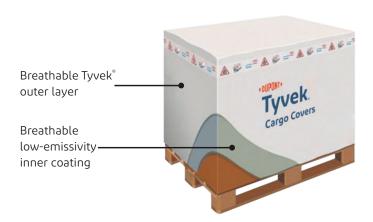
DuPont™ Tyvek® Solar™ W20 cargo covers provide protection for a wide range of temperature-sensitive products. Tyvek® Solar™ W20 provides all the benefits of Tyvek® Solar™ W10 but adds a performance-enhancing, low-emissivity metallized coating inside that further reduces heat transfer to your cargo, helping to enhance protection from solar exposure breaks in the cold chain.

#### Breathable barrier

The process used to make the Tyvek® Solar® W20 cover maintains the breathability of the material, reducing risk from humidity, condensation and trapped gases, while speeding recovery



to your desired target temperature when brought back into the cold chain from a hot environment exposure—benefits you won't get with non-breathable competing covers.



# Why use Tyvek® cargo covers?

Tyvek<sup>®</sup> cargo covers are made using a flash spinning process unique in commercial manufacturing. Tyvek<sup>®</sup> Solar<sup>™</sup> W20 cargo covers are:

- Reflective to reduce temperature excursions and cold chain breaks
- Breathable to allow gases, vapors and condensation to pass through
- Durable to control physical hazard intrusion and provide protection from adverse weather
- Easy to use and install

#### Range of available sizes

A global size range of Tyvek® cargo covers is available (UK/USA, PMC, ULD, EURO, ASIAN and matching bases), as well as custom sizes.

## Lightweight strength

The unique flash-spun structure of Tyvek® resists tears and punctures, yet it's typically two to eight times lighter than conventional products.

#### Superior temperature control

The brilliant white surface of the Tyvek® Solar™ W20 cargo cover is a superior reflector of solar radiation in the most important, highest intensity visible spectrum, thereby reducing heat gain. At the same time, the metallized inner coating further decreases heat transfer in the direction of the cargo, all without reducing the covers' breathability.



## Technical properties

Property		Unit		Nominal	Value Min	Max	Test method
Basis weight <sup>1</sup>		g/m²		60	-	65	DIN EN ISO 536 (96)
Thickness <sup>2</sup>		μm		170	_	230	DIN EN ISO 534 (05)
Tensile strength <sup>3</sup>		N/5 cm	MD	155	130	_	EN 12311-1 (99)
		N/5 cm	XD	130	110	_	
Tensile elongation <sup>3</sup>		%	MD	9	-	12	EN 12311-1 (99)
		%	XD	14	-	19.5	
Tear resistance (nail shank) <sup>3</sup>		N	MD	60	40	_	EN 12310-1 (99)
		N	XD	55	40	_	
Emissivity*		%		15	_	21	ASTM C1371
Reflectivity**	490 nm (solar peak)	%		93.1	92.5	_	ASTM E903
	300 - 1120 nm <sup>4</sup>	%		90.8	90.4	_	
Moisture vapor transmission <sup>5</sup>		g/m²/24h		1300	800	_	DIN EN ISO 12572 C
Water pressure (hydrostatic head) <sup>6</sup>		cm H <sub>2</sub> O		_	130	_	DIN EN 20811 (92)
Resistance to penetration of water		-		W1 Pass	_	_	DIN EN 1928-A (00)

MD/XD: Machine direction/cross-machine direction



External layer of Tyvek® high-reflectivity fabric protects products from solar exposure



Durable and tear resistant



Low-emissivity metallized layer provides enhanced temperature control



Weather resistant



Lightweight design for easy handling and reduced freight costs



Built-in elastic band for ease in securing the cover



Installs easily for reduced labor requirements and consistent performance

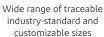


Recommended for

pharmaceuticals



Global availability

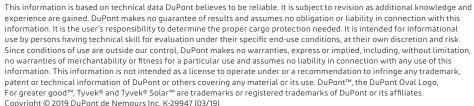




For greater good ..



**Distributor Switzerland** QRWaybill Sàrl, Aigle T. +4179 446 2988 M. exec@qrwaybill.ch  <sup>†</sup>The Tyvek® recycling program is now available in the United States and Canada.



Technology by Blueye is a registered trademark of Blueye, LLC.



<sup>\*</sup>Inner surface

<sup>\*\*</sup>Outer surface, roll average

<sup>&</sup>lt;sup>1</sup>Sample size 100 cm<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Surface 2 cm<sup>2</sup>, pressure 100 kPa <sup>3</sup> Modified for sample preparation before testing as per EN 13859-1 (2010) & EN 13859-2 (2010)

<sup>&</sup>lt;sup>4</sup>Spectral range including 80% of solar irradiance as per ASTM G173-03 direct plus circumsolar <sup>5</sup>Results based on multi-layer testing; 100% RH in the cup;

<sup>2.5</sup> m/s air velocity above the cup; 30 min time interval <sup>6</sup> Rate of use 60 cm H<sub>2</sub>O/min