

## Vulcabond™ MDX

### Product Description

Single component Bonding Agent for PVC plastisols coated onto polyamide or polyester. Vulcabond MDX is based on a phthalate carrier with excellent bond strength characteristics in many formulations.

### Typical Properties

Appearance	Yellow Liquid
Viscosity at 25°C, Pas	7
Active Ingredient, %	25
Flash point, °C closed cup	>150
Free NCO %	4.0
Free TDI %	1.0
Appearance	Pale Yellow Liquid
Viscosity at 25°C, Pas	10
Active Ingredient, %	25
Flash point, °C closed cup	>100
Free NCO %	4.4
Free TDI %	0.5

*The above do not constitute a specification*

### Applications

Vulcabond bonding agents are used in PVC plastisols when coated onto woven polyester or polyamides such as nylon to prevent material failure caused by delamination of the PVC coating.

We recommend to add the Vulcabond product at the end of the blending stage to maximise pot life whilst ensuring good dispersion. Vulcabond products are single component bonding agents and careful selection of stabilisers, viscosity modifiers, PVC grades and fabric type will ensure optimum pot life viscosity during coating and maintain good coating adhesion throughout its service life.

The free NCO content is a measure of the amount of active groups available for bonding to fabric.

Typical end products containing bonding agents include marquees, awnings, truck sidings, tarpaulins, conveyor belting, outdoor clothing and printed tee shirts.

### Packing and Storage

Storage: Room temperature is recommended. Vulcabond products are sensitive to water so are packed as supplied under nitrogen. Once opened, drums should be firmly closed after use but thereafter used as promptly as possible.

Packaging options: Supplied in steel drums of either 50kg or 200 kg net. Full information on the safe handling of this product is available on the Health and Safety Data Sheet.

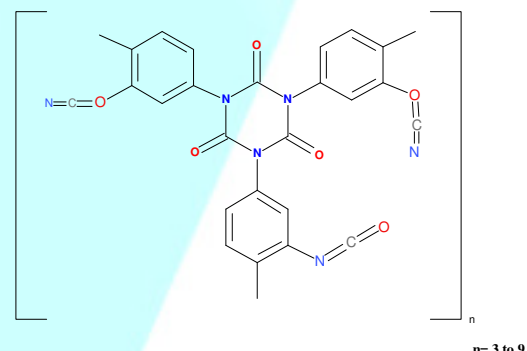
### Technical Performance

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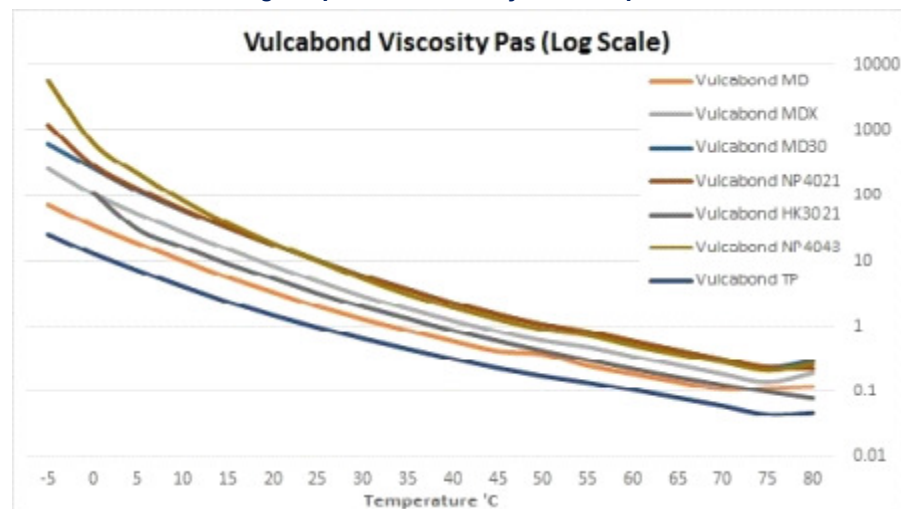
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high bond strength is required.

## Vulcabond MDX change in product viscosity with temperature



Temperature °C	-5	5	15	25	35	45	55
Viscosity Pas	460	87	21	6	2	1	0.8

### Suggested Test Formulation (phr) for bond strength around 118 N/50mm

Evipol MP7155	100	Resin
DINP	75	Plasticiser
Lankroflex ED6 <sup>1</sup>	3	Co-plasticiser
Stabiliser LZC6148 <sup>1</sup>	2	Stabiliser
Vulcabond MDX <sup>1</sup>	7.5	Bonding Agent (4% w/w)
INTERCIDE™ DBF 10 DINP <sup>1</sup>	3.0	Biocide (Approx. 1.5% suggested w/w)

Adhesion rating: Good

Resin and plasticiser also has an influence on peel strength.

<sup>1</sup> Example of those available from Valtris Specialty Chemicals. The length of stability and colour control can be further improved when used in conjunction with an epoxy plasticiser, such as Lankroflex E2307 or Lankroflex ED6 (3.0 to 5.0 phr). Lankroflex ED6 helps to maintain low plastisol viscosity during coating. Biocide products from the INTERCIDE range are often used in this application to prevent fungal growth on and bacterial staining of the coated fabric.

### Suggested Addition Level

4.0 to 8.0 % w/w

### Regulatory Information

FDA/EU approval for food contact uses. This product contains a pyrrolidone.

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Valtris Specialty Chemicals Ltd, Lankro Way, Eccles, Manchester, UK, M30 0LX.  
Tel +441617851111  
www.valtris.com

