



## VORACOR CS 819 Polyol VORACOR CD 428 E Isocyanate

### Description

VORACOR® CS 819 Polyol is designed for the production of polyurethane rigid foams for manufacture of rolling shutters through continuous process.  
VORACOR CS 819 Polyol allows a fast production speed.  
VORACOR CS 819 Polyol doesn't contain any halogenated blowing agent.

### Typical Component Properties

	Units	VORACOR CS 819 Polyol	VORACOR CD 428 E Isocyanate	Test Method
Hydroxyl Nr	mgKOH/g	371		ASTM D 4274d
NCO content	%		31.0	ASTM D 5155
Viscosity	mPa.s	435 (25 °C)		ASTM D 4878
Viscosity	mPa.s		210 (25 °C)	ASTM D 4889
Specific Gravity	-	1.06 (25 °C)	1.23 (25 °C)	ASTM D 891

### Recommended Process Conditions

To be used in low pressure machines.  
A temperature of facings and conveyor not lower than 30 °C is recommended and 20°C for the components. The facing should be perfectly clean and dry.

	Units	Limits
VORACOR CS 819 Polyol	pbw	100-110
VORACOR CD 428 E Isocyanate	pow	100

### Typical Reaction Characteristics<sup>(1)</sup>

	Units	Handmix	Test Method
Cream time	s	7-15	Internal Dow Method - SH-PM-17
Gel time	s	34-40	Internal Dow Method - SH-PM-17
Tack free time	s	44-50	Internal Dow Method - SH-PM-17
Free disc density	Kg/m <sup>3</sup>	143-157	Internal Dow Method - SH-PM-17

1. Data referred to laboratory tests made with Isocyanate component at 20°C and Polyol component at 20°C, hand-mixed with mechanical stirrer at 3000 rpm. Reported values vary depending on processing condition.

## VORACOR CS 798 Polyol VORACOR CS 678 Isocyanate

### Description

VORACOR® CS 798 Polyol is designed for the production of polyurethane rigid foams for manufacture of rolling shutters through continuous process.  
 VORACOR CS 796 Polyol allows a fast production speed.  
 VORACOR CS 798 Polyol doesn't contain any halogenated blowing agent.

### Typical Component Properties

	Units	VORACOR CS 798 Polyol	VORACOR CS 678 Isocyanate	Test Method
Hydroxy Nr.	mgKOH/g	375		ASTM D 4274d
NCO content	%		31.0	ASTM D 5155
Viscosity	mPa.s	500 (25 °C)	210 (25 °C)	ASTM D 445
Specific Gravity	-	1.06 (25 °C)	1.23 (25 °C)	ASTM D 891

### Recommended Process Conditions

Both high and low pressure machines can be used.  
 A temperature of facings and conveyor not lower than 40 °C is recommended.

### Typical Reaction Characteristics

	Units	Limits
VORACOR CS 798 Polyol	pbw	100
VORACOR CS 678 Isocyanate	pbw	145

  

	Units	Handmix	Test Method
Cream time Gel	s	7-11	Internal Dow Method SH-PM-02
Time Tack free	s	18-22	Internal Dow Method SH-PM-02
Time Free rise	s	25-28	Internal Dow Method SH-PM-02
density	Kg/m <sup>3</sup>	44-47.5	Internal Dow Method SH-PM-04

1. Data referred to laboratory tests made with Isocyanate component at 20 °C and Polyol component at 20 °C, hand-mixed with mechanical stirrer at 3000 rpm. Reported values vary depending on processing conditions.



**VORACOR CS 627 Polyol / VORACOR CS 678 Isocyanate**

**Description**

VORACOR® CS 627 Polyol is designed for the production of polyurethane rigid foams for manufacture of rolling shutters through continuous process. VORACOR CS 627 Polyol allows a fast production speed. VORACOR CS 627 Polyol doesn't contain any halogenated blowing agent.

**Typical Component Properties**

	Units	VORACOR CS 627 Polyol	VORACOR CS 678 Isocyanate	Test Method
Hydroxyl Nr	mg KOH/g	350		ASTM D 4274d
NCO content	%		31.0	ASTM D 5155
Viscosity	mPa.s	500 (25 °C)	210 (25 °C)	ASTM D 445
Specific Gravity	-	1.07 (25 °C)	1.23 (25 °C)	ASTM D 891

**Recommended Process Conditions**

Both high and low pressure machines can be used. A temperature of facings and conveyor not lower than 40 °C is recommended.

	Units	Limits
VORACOR CS 627 Polyol	pbw	105
VORACOR CS 678 Isocyanate	pbw	100

**Typical Reaction Characteristics**

	Units	Handmix	Test Method
Cream time	s	12-16	Internal Dow Method SH-PM-02
Gel time	s	24-28	Internal Dow Method SH-PM-02
Tack free time	s	37-45	Internal Dow Method SH-PM-02
Free rise density	Kg/m³	270-300	Internal Dow Method SH-PM-04

1. Data referred to laboratory tests made with Isocyanate component at 20 °C and Polyol component at 20 °C, hand-mixed with mechanical stirrer at 3000 rpm. Reported values vary depending on processing condition.



Product Specification		Specification number:									
Customer:		Rev.number:	0								
Product:	Rollershutterboxes	Date:									
		Sign.:									
SPECIFICATION	STANDARD	REQUIREMENT									
<b>1 METAL</b>		EN AW 3005 H44									
1.1 Mechanical properties after coating	EN 1396	Rp0.2 : Min. > 135 Mpa Rm : 165 - 215 Mpa A50 : Min. 3%									
1.2 Nominal metal thickness Tolerance on metal thickness	EN 485-4	0.72-0.97mm +/- 0.03 mm									
1.4 Tolerance on lateral bow	EN 485-4	≤ 3mm measured over 2000 mm length									
1.6 Tolerance on width	EN 485-4	<table border="0"> <tr> <td>&lt; 100 mm</td> <td>+0,3/-0</td> </tr> <tr> <td>101-300mm</td> <td>+0,5/-0</td> </tr> <tr> <td>301-500 mm</td> <td>+1,0/-0</td> </tr> <tr> <td>501-1250 mm</td> <td>+1,5/-0</td> </tr> </table>		< 100 mm	+0,3/-0	101-300mm	+0,5/-0	301-500 mm	+1,0/-0	501-1250 mm	+1,5/-0
< 100 mm	+0,3/-0										
101-300mm	+0,5/-0										
301-500 mm	+1,0/-0										
501-1250 mm	+1,5/-0										
<b>2 MAIN SIDE</b>											
2.1 Coating thickness	EN 13523-1	25 +/- 3 microns <sup>1)</sup>									
2.1.1 Primer Topcoat ( Polyester)		Polyester: 5 +/- 1 micron <sup>1)</sup> SP: 20 +/- 2 microns <sup>1)</sup>									
2.2 Colour	EN 13523-3 EN 1396	According to approved sample Ref. Part C.2									
2.2.1 Gloss	EN 13523-2	50 +/- 7 E									
2.3 Bending	EN 13523-7	1 0									
2.4 Impact	EN 13523-5/6	GT0									
<b>3 REVERSE SIDE</b>											
3.1 Std. grey protective coating, epoxy	EN 13523-1	4 +/- 1 microns									
<b>4 PACKING SPESIFICATIONS</b>											
4.1 Packing of coil		C 32, eye to sky, wooden separators									
4.2 OD		Maximum : tba mm.Min tba mm									
4.3 Pallet weight		Maximum tba kg.									
4.4 ID		400 mm.									
4.5 Fibre core		No									
4.6 Main coating		Facing out									
4.7 Coiling direction	EN1396	Clockwise									
<b>5 GENERAL INSTRUCTIONS</b>											
Work certificates	EN 10204 - 3.1B	To be sent pr. e-mail									

<sup>1)</sup> ( Depending on colour )

