

**Roller Coating,  
thixotropic**
**D.E.H.™ 487 Epoxy Curing Agent  
D.E.R.™ 324 Epoxy Resin  
D.E.R.™ 353 Epoxy Resin**

Please use this Technical Data Sheet (TDS) in conjunction with this product's country-specific Safety Data Sheet (SDS) and the Safe Use conditions as described therein. Current Safety Data Sheets can be requested from Olin at [info@olinbc.com](mailto:info@olinbc.com).

**Description**

Formulation for a high solids epoxy coating which may be applied with a roller over a properly pre-treated concrete surface. D.E.R.™ 324 or D.E.R.™ 353 Epoxy Resin can be used for the roller coating with similar performance.

**Formulation**

	Part A	Supplier	Function	Pounds	Gallons
1	D.E.R. 353	Olin	Epoxy Resin	48.00	5.135
2	Anti Terra U 100	Byk-Chemie	Dispersing additive	0.50	0.059
3	BYK 320	Byk-Chemie	Defoaming additive	0.25	0.035
4	MIN-U-SIL 40	U.S. Silica	Filler	40.00	1.809
5	Pigment (R100 TiO <sub>2</sub> )		pigment	9.80	0.294
6	Pigment (black iron oxide)		pigment	0.20	0.005
7	Cabosil TS 720	Cabot	Rheology modifier	1.00	0.067
8	BYK A500	Byk-Chemie	Air release additive	0.25	0.034
	<b>Total Part A</b>			<b>100</b>	<b>7.438</b>
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	<b>Part B</b>				
	D.E.H. 487	Olin	Epoxy Curing Agent	21.54	2.482
	<b>Total Part B</b>			<b>21.54</b>	<b>2.48</b>

For individual rheological properties add more Cab-O-Sil TS 720 and / or add propylene glycol methyl ether.

**Production of  
Part A**

Items 1 - 3: mix  
Item 4: stir in, then disperse with a high shear mixer (Hegman ~ 6.5)  
Items 5 - 8: add one at a time, with dispersion prior to adding next component.

**Part A  
Properties**

Property	Method	Value	Value
Part A Resin component		D.E.R. 353	D.E.R. 324
Part A density, calc. (g/mL)		1.61	1.59
Part A EEW, calc. (g/eq.)		406	417
Part A Viscosity @25 °C (cps)	(1)	7544	7781

(1) Dynamic viscosity with 25 mm parallel plate geometry, 600 micron gap setting, and 10 rad./sec. angular velocity.

**Processing**

Add Part B into Part A and mix well. Apply by roller.  
Usage rate is approximately 200-350 sq. ft. per gallon for a coating thickness of ~ 5 to 8 mils (0.14-0.20 mm).

## Typical System Properties<sup>(1)</sup>

Property	Method	Value	Value
Part A Resin component		D.E.R. 353	D.E.R. 324
Mix Density (lb./gal.)	calc.	12.25	12.13
A/B Mix ratio by weight		4.64	4.59
A/B Mix ratio by volume		3:1	3:1
Mix viscosity @25 °C (cps)	(2)	5770	4600
Potlife, time to 2x viscosity (min)	(2)	26	27
Gel time (min), 100 gram mass	(3)	121	122
Dry film time, dust free (hrs)	(4)	4	4
Dry film time, through dry (hrs)	(4)	10	10
Blush (7 d @ 23 °C/ 50% R.H.)		none	none
60° Gloss (7 d @ 23 °C/ 50% R.H.)	ASTM D523	101	99
<b>Shore D, 23 °C / 50% rel. humidity</b>	ASTM D2240		
16 hours		62	62
24 hours		71	71
30 hours		71	71
48 hours		77	78
72 hours		79	79
96 hours		79	80
144 hours		81	80
168 hours (7 days)		80	80
<b>Shore D, 13 °C / 80% rel. humidity</b>	ASTM D2240		
24 hours		52	51
30 hours		63	63
48 hours		66	65
72 hours		70	69
96 hours		79	78
144 hours		79	78
168 hours (7 days)		80	79

(1) Typical properties, not to be construed as specifications.

(2) Dynamic viscosity with 25 mm parallel plate geometry, 600 micron gap setting, and 10 rad./sec. angular velocity.

(3) Tested by Paul N. Gardner Standard Model Gel Timer at initial formulation temperature of 23 °C.

(4) Measured by ASTM D1640-03 using a BYK dry time recorder at room temperature of 23 °C and ~ 50% relative humidity.

## **Shelf Life Stability**

The starting formulation – even at 40°C – has only a small tendency to sedimentation and can be easily stirred again.

## **Product Stewardship**

Olin Corporation has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis of our Product Stewardship philosophy by which we assess the health and environmental information on our products and then take the appropriate steps to protect employee and public health and the environment.

Olin encourages its customers and potential users of Olin products to review their applications for such products from the standpoint of human health and environmental quality. To help ensure that Olin products are not used in ways for which they were not intended or tested, Olin personnel are available to assist customers in dealing with ecological and product safety considerations. Your Olin sales representative can arrange for the proper contacts.

## **Regulatory Datasheets (RDS)**

Olin Corporation provides information on the regulatory status of its products under prominent regulatory programs in the Regulatory Datasheet (RDS). Regulatory Datasheets can be requested from Olin at [info@olinbc.com](mailto:info@olinbc.com).

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