

Technical Data Sheet

Product Name	
Full Product Name	Unicote 309 2K Epoxy Base
Type of Product	2K epoxy polyamide topcoat
Description	Concept Unicote 309 2K Epoxy is a 2K epoxy topcoat, suitable for most industrial and commercial applications. It is characterised by excellent adhesion and anti-corrosive properties with high abrasion and solvent resistance.

Tinters					
Product Name	Volume Solids	Weight Solids	Density		VOC
	%	%	g/mL	lbs/US gal	g/L lbs/US gal
341 White	70.0	84.7	1.909	15.93	291.2 2.43
342 Yellow Ochre	63.45	79.0	1.689	14.10	354.6 2.96
343 Black	60.2	64.5	1.083	9.04	384.1 3.21
344 Bright Blue	52.6	53.8	1.163	9.71	537.5 4.49
345 Green Blue	56.7	61.4	1.088	9.08	419.8 3.50
346 Violet	53.9	54.4	1.094	9.13	512.0 4.27
347 Bright Red	58.1	64.4	1.141	9.52	406.8 3.40
348 Magenta	58.6	62.6	1.072	8.95	401.4 3.35
349 Bright Yellow	56.2	62.2	1.125	9.39	425.4 3.55
350 Mid Yellow	44.2	50.1	1.125	9.39	541.8 4.52
351 Scarlet	59.8	68.5	1.240	10.35	390.3 3.26
352 Green	55.6	59.5	1.228	10.25	500.3 4.18
353 Dark Red Oxide	61.6	76.9	1.612	13.45	372.6 3.11
354 Jet Black	53.1	56.7	1.053	8.79	455.5 3.80
355 Red	63.1	66.1	1.187	9.91	402.4 3.36
371 Reduced Yellow Ochre	62.5	68.7	1.161	9.69	363.9 3.04
372 Reduced Black	61.8	65.0	1.059	8.84	370.3 3.09
373 Reduced Green Blue	61.0	64.3	1.060	8.85	378.9 3.16
374 Reduced Scarlet	61.8	66.0	1.093	9.12	371.2 3.10
375 Reduced Green	60.8	63.8	1.090	9.10	395.5 3.30
381 Silver	41.4	54.4	1.171	9.77	533.7 4.45
382 Coarse Silver	42.5	51.4	1.116	9.31	541.4 4.52
399 Flattening Base	35.9	43.2	1.093	9.12	621.5 5.19

Date: 6th November, 2020

Technical Data Sheet

Version:4

Products

Product Name	Volume Solids %	Weight Solids %	Density		VOC	
			g/mL	lbs/US gal	g/L	lbs/US gal
309 2K Epoxy Base	42.7	51.0	1.050	8.76	514.6	4.29
309 Epoxy Hardener	37.1	41.3	0.933	7.79	542.0	4.52
831 2K Thinner Slow	0.0	0.0	0.893	7.45	892.7	7.45
831 2K Thinner Normal	0.0	0.0	0.872	7.27	881.9	7.36
831 2K Thinner Fast	0.0	0.0	0.882	7.36	871.5	7.27

Properties

- Superior performance
- High gloss
- Quick and easy application

Substrates

- Mild Steel
- Aluminium
- Galvanised Iron
- Glass Reinforced Plastics (GRP)
- Previously painted substrates in sound condition

Substrate Preparation

 Mild Steel	DTM: Sand with 240 Frecut Primer: <u>Optimal:</u> Concept 2K HS Primer or Concept 136 Epoxy Primer(Urethane) or Concept 141 Epoxy Primer <u>Standard:</u> Apply Concept 103 Etch Primer or Concept 111 Universal Primer(HB) Sand with P600 wet or dry
Aluminium	DTM: No Sanding required <u>Optimal:</u> Apply Concept 141 Epoxy Primer or Concept 132 2K Etch Primer with Concept 2K HS Primer <u>Standard:</u> Apply Concept 103 Etch Primer or Concept Metal Etch or Concept 111 Universal Primer(HB) Sand with P600 wet or dry
Galvanised Iron	DTM: Sand with 240 Frecut <u>Optimal:</u> Apply Concept 141 Epoxy Primer, or Concept 132 2K Etch Primer with Concept 2K HS Primer <u>Standard:</u> Apply Concept 103 Etch Primer or Concept Metal Etch or Concept 111 Universal Primer(HB) Sand with P600 wet or dry
Glass Reinforced Plastics (GRP)	DTM: Sand with 240 Frecut <u>Optimal:</u> Apply Concept 141 Epoxy Primer or Concept 2K HS Primer <u>Standard:</u> Apply Concept 103 Etch Primer or Concept 111 Universal Primer(HB) Sand with P600 wet or dry
Previously painted surfaces (in sound condition)	Sand with P600 wet or dry
Special Notes: • All surfaces must be thoroughly sanded and cleaned with Concept Wax & Grease Remover prior to application. • Use white or light coloured primers under bright yellows, oranges and reds, if required. • The above systems are examples only. For further information, please contact Concept Paints Technical Representative.	

Product Preparation

 	• Weigh the concentrates into the required base in accordance with the relevant colour formula. • A maximum of only 10% reduced concentrates is allowed and a maximum of 35% for all concentrates, in total. • Stir or shake for a minimum of 10 minutes. • Never leave the mixture stand for more than 30 minutes before mixing.		
 4:1 Mixing Ratio (by volume)		Concept 309 2K Epoxy	Concept 309 Epoxy Hardener
		4 parts	1 part

Product Preparation

 Reducer	Up to 20% (v/v) Concept 831 2K Thinner, if required			
 Matting (if required)	Satin Finish: Add 30% of 399 Flattening Base. Matt Finish: Add 45% of 399 Flattening Base. Notes: • Never add more than 50% of 399 Flattening Base. • 399 Flattening Base must be added before adding a hardener or thinner. • The addition of 399 Flattening Base will reduce coverage.			
 Pot life @ 25°C (77°F)	3-4 hours			
 Spray viscosity @ 25°C (77°F)	BSB 4 Cup Ford 4 Cup	17-19 s 15-17 s		
   Spray equipment	Gun type	Fluid tip	Spray pressure	Spray Distance
	Gravity Feed	1.2-1.4 mm 0.047-0.055"	200-240 kPa 2.0-2.4 bar 30-35 psi	15-20 cm 6-8 inch
	Suction feed	1.5-2.0 mm 0.059-0.079"	200-240 kPa 2.0-2.4 bar 30-35 psi	15-20 cm 6-8 inch
	Airless, Air Assisted, Electrostatic	Consult the manufacturer's instructions.		

	Number of coats	2-3	Apply one light coat followed by one or two even full coats. Avoid heavy wet coats.
	DFT Recommended	80-100 µm 3.1-4.0 mils	
	Flash off time @ 25°C (77°F)	5-10 min between coats	
	Drying	Air Dry @ 25°C (77°F)	Tack Free: 3-4 hours Recoat with itself after 7 hours minimum and 36 hours maximum.
This data relates only to the material designated herein and does not apply to use in combination with any other material or any process. The data is not to be considered as a warranty or quality specification and we assume no liability in connection with its use.			

Remarks

	Stir all products thoroughly each time before use. Stir the mixture well after the weigh-out of the components.
	Before application a colour comparison is recommended
	Surface temperature must always be a minimum of 3°C (5°F) above dew point.

Equipment Cleaning

Use recommended Concept Paints cleaner such as Concept Gunwash or Multi-Thinner

Dry Film Properties

After 7 days drying,
when compared to similar technology products.

Gloss 60/20°	95/85
Water resistance	Excellent
Petrol resistance	Excellent
Abrasion Resistance	Excellent
Durability	Good (will chalk and yellow on prolonged exposure)

Product Data

Theoretical Coverage	Approx. 8.0 m ² /L (325 ft ² /US gal) @ recommended DFT
Shelf Life	36 months in an unopened container at room temperature away from sunlight.

Product Packaging

Product Code 1	Product Code 2	Product Name	Package Size
G/341-G/355	3410341-3410355	Tinters	1L, 4L
G/381-G/382	3410381-3410382	Metallic Tinters	1L, 4L
G/371-G/375	3410371-3410375	Reduced Tinters	1L
IN39990030001	3999003	399 Flattening Base	1L
IN39990030004	3999003	399 Flattening Base	4L
IN30990000004	3099000	309 2K Epoxy Base	4L
IN30990000014	3099000	309 2K Epoxy Base	14L
IN30990000020	3099000	309 2K Epoxy Base	20L
IN39092000001	3909200	309 Epoxy Hardener	1L
IN83191000020	8319100	831 2K Thinner Slow	20L
IN83192000020	8319200	831 2K Thinner	20L
IN83193000020	8319300	831 2K Thinner Fast	20L

Safety

For automotive and industrial use only by professional painters. Not recommended for sale to, or use by the general public. Before using, read and follow all label and Safety Data Sheet (SDS) precautions. If mixed with other components, the mixture will have hazards of all individual components.

Read and understand the Guidelines for the Safe Handling and Use of Isocyanate Containing Paints, including the use of approved respiratory protection and Personal Protective Equipment. Use only in a well-ventilated approved spray booth, according to local regulations.

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