

Guide Formulations

2K PU Automotive Refinish Clearcoat

Ref: Inz 2/LV Clear - 001

Part A	Material	Supplier	Amount (g)
Acrylic Polyol	Macrynal VSM 2805/80BA	Cytec	47.70
UV Absorber	Tinuvin 1130	Ciba/BASF	0.30
UV Stabiliser	Tinuvin 292	Ciba/BASF	0.30
Flow & Levelling Additive	Dynodd F-1	Dynea	0.50
Solvent	Butyl Acetate	Samuel Banner	43.40
Catalyst	TIB KAT 216 (10% Solution in Butyl Acetate)	TIB Chemicals	0.50
Moisture Scavenger	Incozol 2	Incorez	2.00
Reactive Diluent	Incozol LV (10% replacement of Polyol)	Incorez	5.30
			100

Part B	Material	Supplier	Parts by Weight
Polyisocyanate	Basonat HA 100	BTC/BASF	40.10

NCO:OH = 1.05:1

Manufacturing Instructions – Part A

- In a clean and enclosed vessel (excluding moisture ingress) add Macrynal VSM 2805/80BA
- Add Tinuvin 1130, Tinuvin 292, Dynodd F-1, Butyl Acetate, and Catalyst under low shear. Mix until homogenous for about 15 mins.
- Add Incozol 2 (Moisture Scavenger) into the above mixture under stirring. Mix for 10 mins.
- The above mixture along with Incozol 2 should be left for 18-24 hours before adding Incozol LV.
- After 18-24 hours add Incozol LV under low stirring.

NOTE: ALL THE ABOVE COMPONENTS SHOULD BE STIRRED UNDER **NITROGEN** BLANKET.

- Finally mix PART A and PART B together until homogenous, the mixture then is ready for use.

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Properties

All the properties are measured after 7 day of cure including the initial baking.

1) Physical Properties

Pot Life (mins)	130
% Solids	61
VOC (g/L)	401
Mixed Viscosity (secs) - Ford Cup B4	19
Mixed S.G (g/lit)	1.03

2) Dry Film Properties

Persoz Hardness (secs)	307
Gloss	
20°	126.9
60°	154.8
85°	96.2

Application Properties

Gun Set-up	
Conventional Air-Assisted Gun (HVLP)	1.3 Tip
Pressure	28-30 psi (2 Bar)
Application	One Light Coat + One Full Coat
Cure Time	30-40 min @ 60°C