



COLD CASTABLES



Erapol Cold Castables

Era Polymers range of Cold Castable Polyurethane systems are available in either TDI or MDI with varying hardnesses.

The variety of characteristics suit many applications including casting complex shapes and the reproduction of intricate patterns. They are designed for processing and curing at room temperature but can also be cured at elevated temperatures for faster demould and improved physical properties.

These two component products can be either hand mixed or dispensed through a plural component machine.



Applications Include:

- CONCRETE MOULDS & STAMPS
- SEALS
- SHOCK AND SOUND DAMPENING PADS
- WASHERS
- GASKETS
- GENERAL MOULDS
- ELECTRICAL INSULATION & ENCAPSULATION
- SPECIAL EFFECTS



Product Range

Eracast MM (Mould Making) 3K Series

- FREE FROM MOCA
- HIGH ELONGATION
- GOOD CHEMICAL RESISTANCE
- FREE FROM FLAMMABLE SOLVENTS

TDI

PROPERTIES	MM45A	55A	65A	75A	MM85A
MM Isocyanate (pbw)	100	100	100	100	100
MM45A Curative (pbw)	54.2	47.4	33.9	20.3	-
MM85A Curative (pbw)	-	2.6	7.8	13.1	20.7
Erapol Temperature (°C)	25	25	25	25	25
Curative Temperature (°C)	25	25	25	25	25
Pot Life (mins)	10 - 16	9 - 14	7 - 10	5 - 8	4 - 7



Eracast RT

- SLOW CURE
- HIGH ELONGATION
- FLEXIBILITY

TDI

PROPERTIES	RT301A	RT45A	RT50A
Mix Ratio (A/B)	100/110	100/00	100/48
Pot Life @ 25°C (mins)	15	12	14
Hardness (Shore A)	30 ± 5	45 ± 5	50 ± 5
Mixed Viscosity @ 25°C (cps)	3000	4000	4000



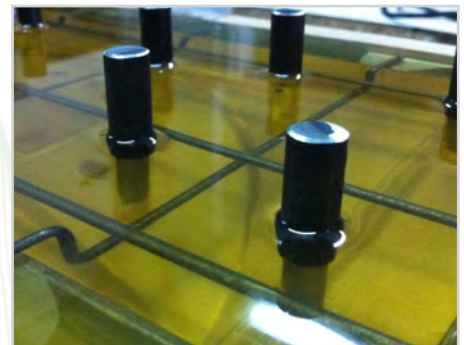
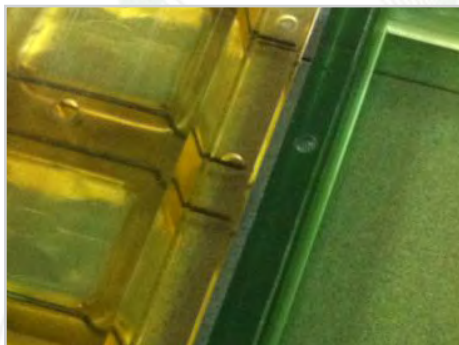
Erapol Cold Castables

Erapol CC (High Performance)

- SLOW CURE
- TOUGH
- HIGH ELONGATION
- LOW SHRINKAGE
- GOOD ABRASION
- FLEXIBILITY

TDI

PROPERTIES	CC50A	CC5/65A	CC80A	CC90A	CC95A	CC60D
Mix Ratio (A/B)	100/100	100/100	100/45	100/50	100/15	100/16.5
Pot Life @ 25°C (mins)	10	12	17	10	8	6
Hardness (Shore A)	50 ± 5	60 ± 5	80 ± 3	90 ± 5	95 ± 3	60D ± 3
Mixed Viscosity @ 25°C (cps)	3300	3500	5200	4500	5000	4500

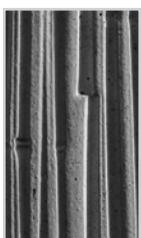


Erapol CCM (Medium Performance)

- SLOW CURE
- HIGH ELONGATION
- INEXPENSIVE
- LOW SHRINKAGE
- DURABLE

TDI

PROPERTIES	CCM55A	CCM75A	CCM80A	CCM90A	CCM95A	CCM65D
Mix Ratio (A/B)	100/56	100/45	100/35	100/20	100/15	100/19
Pot Life @ 25°C (mins)	20	13	13	9	7	6
Hardness (Shore A)	55 ± 5	75 ± 3	80 ± 3	90 ± 5	95 ± 5	65D ± 5
Mixed Viscosity @ 25°C (cps)	2700	3000	4400	4900	4800	4800



Product Range

Eracast Tooling Grades

- LOW VISCOSITY
- LONG POT LIFE
- RAPID DEMOULD
- VERY LOW SHRINKAGE

MDI

PROPERTIES	TU601D	TU60D-LP	TLS65D	TG70D	TG70D-MF	TG75D	TG75D-FAST
Mix Ratio (A/B)	100/21	100/43	100/100	100/130	100/130	100/26	100/27
Pot Life @ 25°C (mins)	5	25	6	9	9	30	7
Hardness (Shore D)	62D	60D	65D	70D	70D	75D	75D



Erapol EMD (Low Hardness)

- LOW VISCOSITY
- LONG POT LIFE
- RAPID DEMOULD
- VERY LOW SHRINKAGE

MDI

PROPERTIES	EMD25ACC	EMD35ACC	EMD45ACC
Mix Ratio (A/B)	100/230	100/210	100/120
Pot Life @ 25°C (mins)	15	15	23
Hardness (Shore A)	25 ± 5	35 ± 5	45 ± 5
Mixed Viscosity @ 25°C (cps)	450	550	650



Grouting

- FLEXIBILITY
- HIGH ELONGATION
- RAPID DEMOULD
- ECONOMICAL
- LOW VISCOSITY

MDI

PROPERTIES	MGP168
Mix Ratio (A/B)	100/100
Working Life @ 25°C (mins)	4
Hardness (Shore A)	80 ± 5



For further information please refer to the relevant Technical Data Sheet or contact your Era Polymers Sales Representative.

Cold Castable Polyether TDI Systems

PART A PROPERTIES	High Performance										General Purpose						
	CC50A	CC5/65	CC80A	CC90A	CC95A	CC60D	RT301A	RT45A	RT50A	CCM55A	CCM75A	CCM80A	CCM90A	CCM95A	CCM65D	MM45A	MM85A
Specific Gravity at 25°C	1.06	1.06	1.06	1.06	1.06	1.06	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.08	1.02	1.02
Colour	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber
Specific Gravity at 25°C	1.15	1.10	1.01	1.26	1.20	1.20	1.02	1.02	1.02	1.20	1.04	1.01	1.20	1.20	1.20	1.00	1.20
Colour	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber	clear, light amber
Mix Ratio by Weight (A/B)	100 / 100	100 / 100	100 / 45	100 / 50	100 / 15	100 / 16.5	100 / 110	100 / 100	100 / 48	100 / 56	100 / 45	100 / 35	100 / 20	100 / 15	100 / 19	100 / 54	100 / 21
Temperature of Part A (°C)	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30
Temperature of Part B (°C)	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30	25 - 30
Pot Life at 25°C (mins)	10	12	17	10	8	6	15	12	14	20	13	13	9	7	6	13	5
Demould at 25°C (hrs)	24	24	24	16	16	7	24	24	24	24	24	24	16	16	16	16	16
Accelerated Cure at 70°C (hrs)	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Complete Cure at 25°C (days)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Hardness (Shore A)	50 ± 5	60 ± 5	80 ± 3	90 ± 5	95 ± 3	60D ± 3	30 ± 5	45 ± 5	50 ± 5	55 ± 5	73 ± 3	80 ± 3	90 ± 5	95 ± 5	65D ± 5	45 ± 5	85 ± 5
Tensile Strength / MPa (psi)	15 (2176)	16 (2321)	28 (4061)	26 (3771)	44 (6382)	50 (7281)	3 (391)	7 (1050)	5 (725)	15 (2176)	20 (2901)	24 (3481)	20 (2944)	23 (3350)	37 (5370)	10 (1479)	16 (2292)
Elongation (%)	650	600	510	500	380	250	>2200	>2200	435	550	850	500	370	320	300	1035	600
DIN Abrasion Resistance (mm3)	120	135	110	75	85	96	>300	>300	250	185	195	175	260	145	240	>300	290
Linear Shrinkage at 23°C (%)	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.3	0.1	0.2
Cured Density (g / cm³)	1.10	1.10	1.10	1.10	1.12	1.10	1.06	1.06	1.07	1.10	1.09	1.10	1.10	1.10	1.10	1.07	1.11

*The information presented here is based on laboratory testing.

Cold Castable Polyether MDI Systems

PART A PROPERTIES	Flexible			Quick Cure			High Performance			Grout	
	EMD25ACC	EMD35ACC	EMD45ACC	QCM40A	QCM60AS	QCM70A	QCM90AS	CMD88A	CMD90AS		CMD93A
Specific Gravity at 25°C	1.15	1.15	1.15	1.15	1.12	1.16	1.16	1.13	1.13	1.13	1.06
Colour	clear, light amber	clear, light amber	clear, light amber	light amber	light amber	light amber	light amber	white translucent	white translucent	white translucent	light amber
Specific Gravity at 25°C	1.03	1.03	1.03	1.03	1.02	1.03	1.03	1.02	1.02	1.02	1.05
Colour	clear	clear	clear	clear	clear	clear	clear	white	white	white	grey
Mix Ratio by Weight (A/B)	100 / 230	100 / 210	100 / 120	100 / 185	100 / 100	100 / 90	100 / 65	100 / 56	100 / 60	100 / 42	100/100
Temperature of Part A (°C)	20 – 30	20 – 30	20 – 30	20 – 30	20 – 30	20 – 30	20 – 30	25 – 35	25 – 35	25 – 35	20 – 30
Temperature of Part B (°C)	20 – 30	20 – 30	20 – 30	20 – 30	20 – 30	20 – 30	20 – 30	25 – 35	25 – 35	25 – 35	20 – 30
Pot Life (mins)	15	15	23	7	15	7	10	10	8	7	4
Demould at 25°C (hrs)	4	4	4	1	1	1	2	3	2	2	1
Accelerated Cure at 60°C (hrs)	16	16	16	16	16	16	16	16	16	16	-
Complete Cure at 25°C (days)	7	7	7	3	3	3	3	3	3	3	1
Hardness (Shore A)	25 ± 5	37 ± 5	45 ± 5	40 ± 3	60 ± 3	70 ± 3	90 ± 3	88 ± 3	90 ± 3	93 ± 3	80 ± 5
Tensile Strength / MPa (psi)	1 (145)	5 (725)	4 (580)	2 (290)	6 (870)	10 (1450)	32 (4641)	32 (4641)	24 (3481)	27 (3916)	13 (1130)
Elongation (%)	1200	700	670	300	290	310	250	350	525	410	405
Angle Tear Strength, Die C (kN/m)	5	7	7	8	32	41	75	65	117	137	45
DIN Abrasion Resistance (mm3)	>300	>300	>300	240	90	55	58	35	57	48	210

*The information presented here is based on laboratory testing.

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VERSION: CC_2023

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