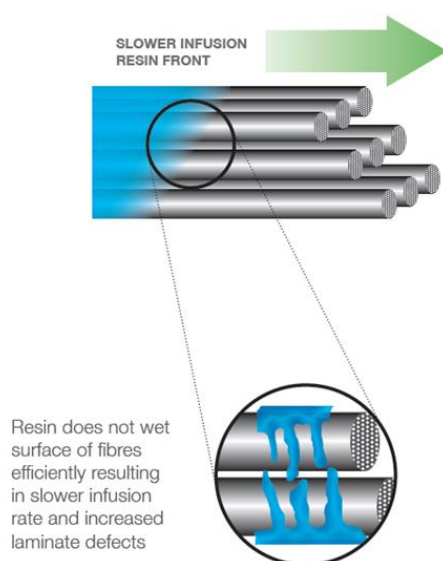


PRIME™ SYSTEMS

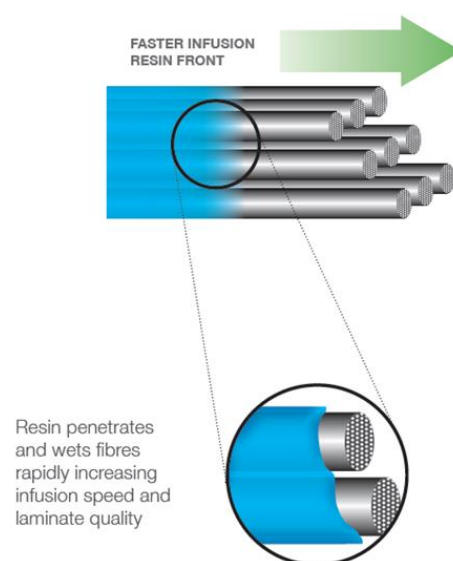
Structural, High Tg Liquid Epoxy Transfer Systems

- Range of systems suitable for vacuum infusion, RTM & compression moulding
- Versatile systems for a range of applications:
 - PRIME™ 37 & A3X Hardeners – premium resin, bio-based as standard
 - PRIME™ 37 & High Tg Hardener - print-resistant, cost-effective tooling solution
 - PRIME™ 38 & High Tg Hardener – built-in UV & yellowing resistance
 - PRIME™ 130 – preformable, rapid curing compression moulding resin
 - PRIME™ 180-1 - high clarity resin & temperature resistance
 - T-PRIME™ 130-1 - infusable tooling solution for most cocomposite applications
 - T-PRIME™ 160 - high temperature tooling resin
- DNV & Lloyds Register Certified formats available

Standard Infusion System








Gurit Technology



SYSTEM SELECTOR

	PRIME™ 37	PRIME™ 37 (+ High Tg Hardener)	PRIME™ 38	PRIME™ 130	PRIME™ 180-1	T-PRIME™ 130-1	T-PRIME™ 160
System Properties							
Mixed Viscosity (25°C)	150 - 500 cP	320 cP	320 cP	590 cP	280 cP	250 cP	390 cP
Typical Post-cure	16 hrs @ 50°C	5 hrs @ 100°C	5 hrs @ 100°C	¼ hr @ 130°C	1 hr @ 180°C	2 hrs @ 120°C	2 hrs @ 150°C
Maximum Tg	75°C	110°C	110°C	130°C	200°C	130°C	160°C
Resin Bio-based content	Up to 15%	Up to 15%	Up to 15%	-	-	-	-
Relative Cost per KG	€	€€	€€€	€€€	€€€€€	€€€€	€€€€€
USP	Bio-based, versatile A3X Hardeners	Print-resistant, cost-effective tooling solution	Yellowing Resistance	Fast Liquid Press Moulding	High clarity & Temperature resistance	Infusable Tooling solution	High Temperature Tooling Resin
Typical Applications							
Monolithic Laminates	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
Sandwich Laminates	●●●●●	●●●●●	●●●●●			●●●●●	●●●●●
Composite Tooling	●●●●●	●●●●●	●●●●●			●●●●●	●●●●●
Cosmetic / Low Print	●●●	●●●●	●●●●●	●●●●	●●●●	●●●	●
Processing Method							
Vacuum Infusion	●●●●●	●●●●	●●●●	●	●●	●●●●●	●●●●
RTM / VARTM	●●●●●	●●●●●	●●●●●	●●	●●●●●	●●●●●	●●●●
Compression Moulding	●●	●●	●●	●●●●●	●●	●●	●●

PRODUCT SELECTOR

SYSTEM PROPERTIES AT 25°C**			MIX RATIO RESIN : HARD (BY WEIGHT)	MIXED VISCOSITY**	150g POT-LIFE**	MAXIMUM TG	TECHNICAL DATASHEET			
PRIME™ SYSTEMS	PRIME™ 37 Resin Premium performance infusion system with excellent fibre wetting and bio-based content as standard. Replaces PRIME™ 27. 3 rd party certified: • DNV-GL Download (PDF) • Lloyd's Register Download (PDF)	3X Fast Hardener	100 : 29	500 cP	½ hour	72 °C	 Download (PDF)			
		3X Standard Hardener		200 cP	1 hour	72 °C				
		3X Slow Hardener		200 cP	4 hours	74 °C				
		3X Extra-slow Hardener		150 cP	10 ½ hours	64 °C				
		PRIME™ High Tg Hardener	100 : 25	320 cP	5 hours	120 °C				
TOOLING SYSTEMS	PRIME™ 38 Resin Yellowing resistant, UV stable infusion resin system for high clarity applications. Contains bio-based content as standard.	PRIME™ High Tg Hardener	100 : 24	320 cP	5 hours	120 °C	Please contact technical support			
		PRIME™ 130 Resin Designed for compression moulding applications where flexible working times are required for preforming followed by fast cure times.	PRIME™ 130 Hardener	100 : 26	590 cP	½ hour	130 °C	Please contact technical support		
			PRIME™ 180-1 Resin Designed for RTM processes for manufacturing high quality structural carbon components.	PRIME™ 180-1 Hardener	100 : 100	280 cP	1 ½ hours	160 °C	Please contact technical support	
				T-PRIME™ 130-1 Resin For manufacturing infused glass and carbon moulds. Compatible with T-Gel 130-1 and T-Lam 130-1	T-PRIME™ 130-1 Hardener	100 : 27	250 cP	5 ½ hours	130 °C	 Download (PDF)
					T-PRIME™ 160 Resin A low viscosity epoxy tooling system for manufacturing high temperature composite moulds. Ideal for prepreg processing.	T-PRIME™ 160 Hardener	100 : 35	390 cP	6 ½ hours	160 °C
T-LAM 130-1 Resin Designed for wet laminating glass or carbon moulds. Compatible with T-Prime 130-1 and T-Gel 130-1.	T-LAM 130-1 Hardener	100 : 40	450 cP	6 hours	130 °C	 Download (PDF)				
	T-GEL 130-1 Resin For manufacturing glass or carbon reinforced mould tools. Compatible with T-Prime 130-1 and T-Lam 130-1.	T-GEL 130-1 Hardener	100 : 49	6520 cP	3 ½ hours	130 °C	 Download (PDF)			
		T-PASTE 70-2 Resin Designed for Marine, Wind Energy and Automotive customers looking for a fast and reliable way to manufacture patterns and direct moulds	T-PASTE 70-2 Hardener							
			MIX RATIO (BY VOLUME)	THICKNESS (MAX APP.)	DENSITY	MAXIMUM TG				
			100 : 100	40 mm	0.73 g/cm ³	85 °C	 Download (PDF)			

**working time properties are highly subjective to ambient conditions and should be used as an approximate guideline for all systems at 25°C. Please refer to the corresponding page of this document for specific testing methods used.

PRIME™ SYSTEMS CODE SELECTOR

PRIME™ 3X Systems	Size	Units	Description	MOQ (Each)	Order Code	Notes
PRIME™ 37 Packs	4	Kg	PRIME37 R/H FAST 4KG PACK	10	F160-122	
	4	Kg	PRIME37 R/H STANDARD 4KG PACK	10	F160-123	
	4	Kg	PRIME37 R/H SLOW 4KG PACK	10	F160-108	
	4	Kg	PRIME37 R/H EXTRA-SLOW 4KG PACK	10	F160-109	
PRIME™ 37 Resins	1000	Kg	PRIME37 RESIN 1000KG	1	F160-105	
	197	Kg	PRIME37 RESIN 197KG	3	F160-106	
	16.2	Kg	PRIME37 RESIN 16.2KG A/F	6	F160-115	
Ampreg™ 3X Fast Hardener	900	kg	AMPREG3X HARD FAST 900KG	1	F127-093	
	174	kg	AMPREG3X HARD FAST 174KG	1	F127-006	Mix ratio is 100:29 (by weight)
	19	kg	AMPREG3X HARD FAST 19KG A/F	1	F127-008	
	4.68	kg	AMPREG3X HARD FAST 4.68KG A/F	1	F127-010	
900	kg	AMPREG3X HARD STANDARD 900KG	1	F127-097		
Ampreg™ 3X Standard Hardener	174	kg	AMPREG3X HARD STANDARD 174KG	1	F127-013	Mix ratio is 100:29 (by weight)
	19	kg	AMPREG3X HARD STANDARD 19KG A/F	1	F127-015	
	4.68	kg	AMPREG3X HARD STANDARD 4.68KG A/F	1	F127-017	
	900	kg	AMPREG3X HARD SLOW 900KG	1	F127-098	
Ampreg™ 3X Slow Hardener	174	kg	AMPREG3X HARD SLOW 174KG	1	F127-020	Mix ratio is 100:29 (by weight)
	19	kg	AMPREG3X HARD SLOW 19KG A/F	1	F127-022	
	4.68	kg	AMPREG3X HARD SLOW 4.68KG A/F	1	F127-024	
	900	kg	AMPREG3X HARD EXTRA-SLOW 900KG	1	F127-094	
Ampreg™ 3X Extra-slow Hardener	174	kg	AMPREG3X HARD EXTRA-SLOW 174KG	1	F127-027	Mix ratio is 100:29 (by weight)
	19	kg	AMPREG3X HARD EXTRA-SLOW 19KG A/F	1	F127-029	
	4.68	kg	AMPREG3X HARD EXTRA-SLOW 4.68KG A/F	1	F127-031	
	900	kg	PRIME HIGH Tg HARDENER 900KG	1	F160-116	
167	kg	PRIME HIGH Tg HARDENER 167KG	1	F160-120		
16.4	kg	PRIME HIGH Tg HARDENER 16.4KG A/F		F160-119		
4.1	kg	PRIME HIGH Tg HARDENER 4.1KG A/F	1	F160-121		
Other PRIME™ Systems	Size	Units	Description	MOQ (Each)	Order Code	Notes
PRIME™ 38	1000	Kg	PRIME™ 38 RESIN 1000KG	1	F160-125	Compatible with PRIME™ High Tg Hardener Mix ratio is 100:24 (by weight)
	205	Kg	PRIME™ 38 RESIN 205KG	1	F160-126	
	16.9	Kg	PRIME™ 38 RESIN 16.9KG	1	F160-127	
PRIME™ 130	214	Kg	PRIME™ 130 RESIN 214KG	1	F167-001	Mix ratio is 100:26 (by weight)
	17.7	Kg	PRIME™ 130 RESIN 17.7KG	1	F167-002	
	167	Kg	PRIME™ 130 HARDENER 167KG	1	F167-003	
	4.6	Kg	PRIME™ 130 HARDENER 4.6KG	1	F167-004	
PRIME™ 180-1	10	kg	PRIME180-1 R/H 10KG SAMPLE PACK	1	F168-008	Mix ratio is 100:100 (by weight)
	200	kg	PRIME180-1 RESIN 200KG	1	F168-002	
	200	kg	PRIME180-1 HARDENER 200KG	1	F168-004	
T-PRIME™ Systems	Size	Units	Description	MOQ (Each)	Order Code	Notes
T-PRIME 130-1	1000	kg	T-PRIME 130-1 RESIN 1000KG	1	F163-111	Mix ratio is 100:27 (by weight)
	185	kg	T-PRIME 130-1 RESIN 185KG	1	F163-100	
	12.5	kg	T-PRIME 130-1 RESIN 12.5KG A/F	1	F163-110	
	900	kg	T-PRIME 130-1 HARDENER 900KG	1	F163-112	
	16.7	kg	T-PRIME 130-1 HARDENER 16.7KG A/F	1	F163-101	
	3.4	kg	T-PRIME 130-1 HARDENER 3.4KG A/F	1	F163-103	
T-PRIME 160	1000	kg	T-PRIME 160 RESIN 1000KG	1	F166-012	Mix ratio is 100:35 (by weight)
	200	kg	T-PRIME 160 RESIN 200KG	1	F166-003	
	20	kg	T-PRIME 160 RESIN 20KG A/F	1	F166-011	
	900	kg	T-PRIME 160 HARDENER 900KG	1	F166-013	
	180	kg	T-PRIME 160 HARDENER 180KG	1	F166-009	
	17.5	kg	T-PRIME 160 HARDENER 17.5KG A/F	1	F166-008	

T-PRIME™ Systems are compatible with the following tooling systems.

Other Tooling Systems	Size	Units	Description	MOQ (Each)	Order Code	Notes
T-Gel 130-1	7.6	kg	T-GEL 130-1 RES&HARD 7.6KG PACK	1	F340-112	Mix ratio is 100:49 (by weight)
	20	kg	T-GEL 130-1 RESIN 20KG	1	F340-119	
	9.8	kg	T-GEL 130-1 HARDENER 9.8KG	1	F340-120	
T-Lam 130-1	1000	kg	T-LAM 130-1 RESIN 1000KG	1	F140-207	Mix ratio is 100:40 (by weight)
	20	kg	T-LAM 130-1 RESIN 20KG A/F	1	F140-206	
	900	kg	T-LAM 130-1 HARDENER 900KG	1	F140-208	
	8	kg	T-LAM 130-1 HARDENER 8KG	1	F140-205	
T-Paste 70-2	141	kg	T-PASTE 70-2 RESIN 190L	1	F940-122	Mix ratio is 100:100 (by volume)
	15	kg	T-PASTE 70-2 RESIN 15KG S/S	1	F940-103	
	129	kg	T-PASTE 70-2 HARDENER 190L	1	F940-123	
	13.8	kg	T-PASTE 70-2 HARDENER 13.8KG S/S	1	F940-104	

PRIME™ resins and hardeners are compatible with the following dispense taps:

Description	16 – 20 kg Resins	160 – 200 kg Resins	3.4 – 19 kg Hardeners	160 – 200 kg Hardeners
Dispense Tap	K342-016	K342-010	K342-016	K342-010

Note that relative ordering quantities are as follows:

SYSTEM	RESIN	HARDENER
PRIME™ 37	3 x 1000kg PRIME™ 37 Resin	1 x 900kg Ampreg™ 3X Fast / Standard / Slow / Ex-slow Hardener
	2 x 1000kg PRIME™ 37 Resin	3 x 174kg Ampreg™ 3X Fast / Standard / Slow / Ex-slow Hardener
	2 x 1000kg PRIME™ 37 Resin	3 x 167kg PRIME™ High Tg Hardener
	1 x 167kg PRIME™ 37 Resin	3 x 19kg Ampreg™ 3X Fast / Standard / Slow / Ex-slow Hardener
	1 x 167kg PRIME™ 37 Resin	3 x 16.4kg PRIME™ High Tg Hardener
	1 x 18.6kg PRIME™ 37 Resin	1 x 4.68kg Ampreg™ 3X Fast / Standard / Slow / Ex-slow Hardener
	1 x 18.6kg PRIME™ 37 Resin	1 x 4.1kg PRIME™ High Tg Hardener
PRIME™ 38	2 x 1000kg PRIME™ 38 Resin	3 x 167kg PRIME™ High Tg Hardener
	1 x 205kg PRIME™ 38 Resin	3 x 16.4kg PRIME™ High Tg Hardener
	1 x 16.9kg PRIME™ 38 Resin	1 x 4.1kg PRIME™ High Tg Hardener
PRIME™ 130	3 x 214kg PRIME™ 130 Resin	1 x 167kg PRIME™ 130 Hardener
	1 x 17.7kg PRIME™ 130 Resin	1 x 4.6kg PRIME™ 130 Hardener
PRIME™ 180-1	1 x 200kg PRIME™ 180-1 Resin	1 x 200kg PRIME™ 180-1 Hardener
T-GEL 130-1	1 x 20kg T-GEL 130-1 Resin	1 x 9.8kg T-GEL 130-1 Hardener
T-LAM 130-1	1 x 20kg T-LAM 130-1 Resin	1 x 8kg T-LAM 130-1 Hardener
T-PRIME 130-1	1 x 185kg T-PRIME 130-1 Resin	3 x 16.7kg T-PRIME 130-1 Hardener
	1 x 12.5kg T-PRIME 130-1 Resin	1 x 3.4kg T-PRIME 130-1 Hardener
T-PRIME 160	3 x 200kg T-PRIME 160 Resin	1 x 180kg T-PRIME 160 Hardener
	3 x 20kg T-PRIME 160 Resin	1 x 17.5kg T-PRIME 160 Hardener
T-PASTE 70-2	1 x 190L T-PASTE 70-2 Resin	1 x 190L T-PASTE 70-2 Hardener
	1 x 15kg T-PASTE 70-2 Resin	1 x 13.8kg T-PASTE 70-2 Hardener

NOTICE

All advice, instruction or recommendation is given in good faith but the selling Gurit entity (the Company) only warrants that advice in writing is given with reasonable skill and care. No further duty or responsibility is accepted by the Company. All advice is given subject to the terms and conditions of sale (the Conditions) which are available on request from the Company or may be viewed at Gurit's Website: www.gurit.com/terms-and-conditions.aspx

The Company strongly recommends that Customers make test panels in the final process conditions and conduct appropriate testing of any goods or materials supplied by the Company prior to final use to ensure that they are suitable for the Customer's planned application. Such testing should include testing under conditions as close as possible to those to which the final component may be subjected. The Company specifically excludes any warranty of fitness for purpose of the goods other than as set out in writing by the Company. Due to the varied nature of end-use applications, the Company does, in particular, not warrant that the test panels in the final process conditions and/or the final component pass any fire standards.

The Company reserves the right to change specifications and prices without notice and Customers should satisfy themselves that information relied on by the Customer is that which is currently published by the Company on its website. Any queries may be addressed to the Technical Services Department.

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