



PRODUCT BULLETIN

ALPHATEC 800

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General Description

ALPHATEC® 800 is a high performance, aggregate-filled epoxy grout with superior mechanical and chemical properties. This grout material has been specifically formulated to support heavy machinery on concrete foundations, and when used correctly, will ensure the transfer of static and dynamic loads into the inertia block. It is widely used in repair work, and for new installations, of diesel engines, reciprocating compressors, electric motors, pumps, blowers, fans, rolling mills, presses, turbines, and many other types of rotating machinery. ALPHATEC 800 has a maximum working temperature limitation (measured at the contact surface) of 70° C for high accuracy alignment, and 100°C for general use. ALPHATEC 800 is available in 2 versions, **Standard** and **Winter** grades. The winter grade formulation allows for 24 hour cure times even at temperatures between 0°C and 10°C. ALPHATEC 800 uses the 001 aggregate, which is pigmented green.

Features

High physical properties

Negligible shrinkage on cure

Excellent creep resistance

Oil and chemical resistant

Resin System Properties

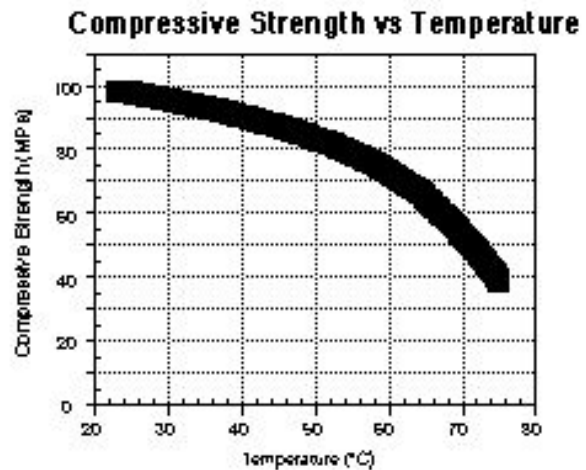
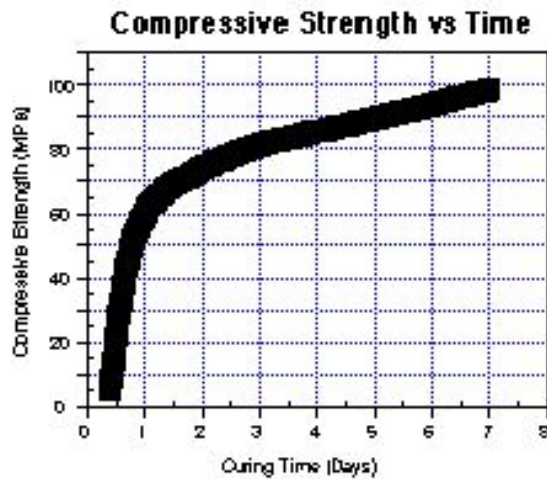
	Liquid	Hardener	Mixed
Viscosity at 25° C (mPa.s/cP):	800	150	400
Specific Gravity:	1.11	0.97	2
Mixing Ratio by weight:	100	44	
Mixing Ratio by volume:	100	50	
	Time	Temp	
Pot Life (min.) at T (°C):	35 mins	23°C	
	80 mins	10°C	
Gel Time (min.) at T (°C):	60 mins	23°C	
	80 mins	10°C	
Working Time (min.) mixed with aggregate:	60 mins	23°C	
	80 mins	10°C	
Shrinkage on cure:	negligible		

Cured Properties

	SI Units MPa (GPa)	Metric kg/cm ²	Imperial psi
Compressive strength (ASTM C579B):	100	1020	14,500
Compressive modulus (ASTM C579B):	(10.8)	110,000	1,564,000
Compressive strength (ASTM C579B) @ 150°C:			
Compressive strength (cured underwater):			
Flexural strength (ASTM C580):	26.1	265	3,700
Flexural modulus (ASTM C580):	(10.1)	103,000	1,465,000
Tensile bond strength (to steel):	19.3	197	2,800
Shear bond strength (to steel):	37.9	386	5,500
Slant shear bond strength to concrete:			
Tensile bond strength to primed concrete:			
Coefficient of linear expansion (ASTM C531):		0.000036 cm/cm/°C	0.00002 in/in/°F
Creep under load - 24 hrs:		0.0027 mm/mm	0.0027 in/in
1 year:		0.0038 mm/mm	0.0038 in/in
10 years:		0.0041 mm/mm	0.0041 in/in

Creep testing is done with a constant load of 600 psi (4 MPa) @60°C

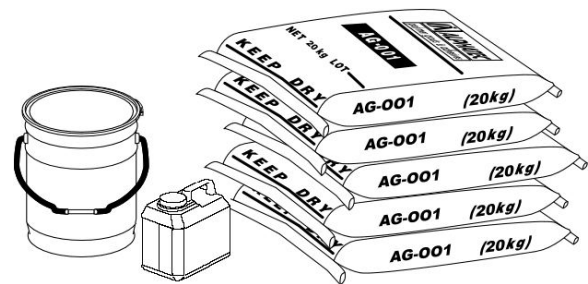
Pictorial Information



Packaging and Safety

ALPHATEC 800 is packed in a set yielding 50 litres. The components are pre-measured, and should normally be mixed as a unit. Aggregate volume can be adjusted to some extent to obtain optimum flowability at the job site, depending on ambient temperatures, and the depth of grout to be poured.

All ALPHATEC products are intended for industrial use, and should be used only by experienced personnel with proper equipment & training. Always use proper protective clothing, including gloves, face masks or shields, and wash any exposed skin thoroughly after using the product. See Safety Data Sheets for more information.



Mixing and Handling

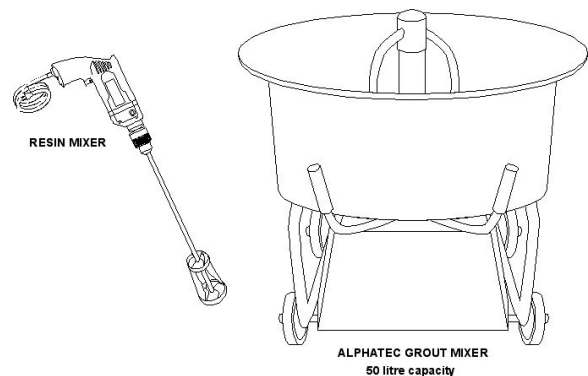
Always use the full amount of hardener, and mix into the liquid portion for at least 2 minutes, using an air or electric powered resin mixer, with a non-aerating blade, such as the "Jiffy" blade illustrated at right.

Pour one bag of aggregate into the mixer first, to seal the trapdoor, and then add the mixed resin.

Add the remaining 4 bags of aggregate slowly and steadily, and continue mixing only until all the aggregate particles are coated with resin. **Do not overmix.**

In general use the full amount of aggregate per set, unless low temperature conditions demand a slight reduction in the first mix, or slightly more in high temperatures.

See "General Instructions for the Use & Handling of Polymer Grouts" for further information.



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