FlexMaster

Product Overview:

FlexMaster is a three-component, water-swelling hydrogel formulated on an acrylate basis that cures to an elastic, flexible product. One of the key features of FlexMaster is its low blending viscosity, which is almost equivalent to the viscosity of water. This property allows for easy application and penetration, making it a suitable choice for projects where traditional, higher-viscosity materials may not be practical.

The low-viscosity nature of FlexMaster enables construction professionals to utilize it in a variety of applications, including the creation of grout curtains and ground stabilization. The Gel time of FlexMaster can be set by adjusting the amount of Component C, approximate data can be seen below.

Technical Data:

All values listed are approximations.

Component A:

Makeup	Liquid
Colour:	Blue
Density at 23°C (g/cm^3)	1.20
Dynamic viscosity at 23°C (mPas)	40

Component B:

Makeup	Liquid
Colour:	Clear
Density at 23°C (g/cm^3)	1.1
Dynamic viscosity at 23°C (mPas)	270

Component C:

Makeup	Solid
Colour:	White
Density at 23°C (g/cm^3)	2.6
Apparent density at 23°C (g/cm^3)	1.1

A + B + C

Reaction temperature	Exothermic
Gel time (sec)	15 - 3000
Total curing time (min)	2 – 75
E-modulus (MPa)	0.25
Water absorption	100%
Blending Viscosity at 23°C (mPas)	4.0
Fracture Elongation	500%

Formulation Instructions:

1) Component A and B are mixed at a ratio of 20:1, for a recommended 3 minutes (This activates FlexMaster)
2) Component C is mixed, for a recommended 3 minutes, with 90% to Component A of water.
3) Mixing Ratio
   (A + B) : (C + Water) 1 : 1 (parts per volume)

Gel time table (min:sec):

Gel time with relation to mass of C and Temperature		Component C added as a % mass of water			
		0.5%	1.1%	2.7%	5.5%
Temperature (°C)	25	0:45	0:25	0:15	0:10
	20	0:55	0:30	0:20	0:15
	15	1:10	0:50	0:25	0:20
	10	1:55	1:10	0:35	0:23
	5	3:10	1:15	0:40	0:25

Storage:

FlexMaster has a minimum shelf life of 12 months, in dry conditions as temperatures between 15-25°C. Product should be kept out of direct sunlight. Should you wish to use the product after 12 months, we recommend a sample be sent to Deutsch Master for quality testing.

Disposal:

General waste can be used for small quantities of reacted product. Singular components should be disposed of in accordance with local laws.