

TECHNICAL DATA SHEET

SAN-G AURUM UP+

Generic Name by SUCAMEC: NON-SENSITIZED BULK EMULSION OR HYDROGEL

DESCRIPTION AND COMPOSITION:

SAN-G AURUM UP+ is a water-in-oil type gassing emulsion, with energizing components that allow it to obtain a high detonation velocity and detonation pressure, generating a good quality of blasting gases. It is also safe and has excellent water resistance.

SAN-G AURUM UP+ is a product developed specifically for use in up hole drilling in underground mining.

SAN-G AURUM UP+ is sensitized by the addition of gassing solution prior to loading into the hole by means of a specially designed pumping unit on a mobile unit.

SAN-G AURUM UP+ mobile pumping unit is equipped with a Matrix Emulsion gassing system and a logic programming unit (PLC) that allows programming the amount of Emulsion to be efficiently and continuously loaded into the drill holes with flow rates from 20 kg/min to 50 kg/min.

The retention of the explosive in the drill hole will depend on the drilling diameter, inclination, hole cleanliness and presence of water.


USES:

SAN-G AURUM UP+ when gassed presents an excellent adherence and a pasty consistency which makes it possible to use it in up holes obtaining a fully coupled charge; it can be used in all underground mining applications, civil works, tunneling works and where water is present.

The sensitized SAN-G AURUM UP+ should be initiated with a primer consisting of an Emulnor 3000 primer, a Famesa Semigelatina 65 Dynamite primer or with a Booster of a weight in accordance with the weight of the explosive columns used and with a Fanel detonator. The use of Detonating Cords is not recommended.

At least 15 minutes should elapse between loading the SAN-G AURUM UP+ and placing the stemming(s) in the drill hole.

The working temperature range for the SAN-G AURUM UP+ is from -5°C to 40°C. For different temperatures it is recommended to contact Technical Assistance.

TECHNICAL CHARACTERISTICS:

	UNIT	SAN-G AURUM UP+
Matrix relative density	g/cm ³	1.38 ± 3%
Relative density of sensitized matrix	g/cm ³	1.00 to 1.20
Viscosity of the matrix under normal conditions (*)	cP	Min. 20 000
Sensitized matrix detonation velocity (**)	m/s	3 600 to 4 800
Detonation pressure	kbar	32 to 63
Energy	kcal/kg	710
Normal volume of gases	l/kg	988
Relative power by weight (***)	%	79
Relative power by volume (***)	%	133
Water resistance	---	Excellent

Fume category	---	Class 1
Critical diameter	mm	32 (1 ¼ inches)
Time of permanence in the drill hole	days	1

(*) Measured on BROOKFIELD HA DVII viscometer at 50 RPM.

(**) Confined in 1 ½" diameter iron pipe.

(***) Relative powers referred to ANFO, with conventional power of 100.

The values expressed are results at normal conditions (20°C and 1 atm.)

PACKAGING:

	MATERIAL	CAPACITY OF BOX	NET WEIGHT (Kg)	GROSS WEIGHT (Kg)	OUTER DIMENSIONS (cm)
SAN-G AURUM UP+	Cardboard	1 bag x 20.0 kg	20.0	21.9	66.8 x 29.6 x 25.8

TRANSPORT:

Class : 5
Division : 5.1
UN No. : 3375


STORAGE AND WARRANTY:

SAN-G AURUM UP+ should be stored in powder magazines at **temperatures between 0°C and 40°C**, located in safe, well ventilated, dry areas, protected from rain and heat. Also, the explosive inventory should be rotated, avoiding the use of new materials before using old ones. And it must be stored according to the current compatibility table of the relevant authority.

SAN-G AURUM UP+ kept in its original packaging and stored in the above-mentioned temperature conditions has a **warranty period of 3 months** after its production date.

WARNING:

FAMESA EXPLOSIVOS S.A.C. has safe products, but they may become dangerous elements in inexperienced hands.

The purchaser or user must comply with the applicable regulations during transport, storage and use, as well as train duly all its personnel involved in its loading and handling, providing mechanical aids for loads over 25 kg per person.

FAMESA EXPLOSIVOS S.A.C. assumes no liability for transport, storage and/or improper use their products may experience.

The information and recommendation described in this document do not necessarily cover all product applications nor the different conditions under which it is being used. These are based on the experience, research and tests done by Famesa Explosivos S.A.C., who does not guarantee favorable results nor assume any responsibility, expressed or implied, in relation to the use of these suggestions. This product may be changed without prior notice.