

MINING

# **EKOFLEX PLUS**

**PHENOLIC FOAM** 

#### DESCRIPTION

Ekoflex Plus is a two-component foam, obtained after mixing component A (aqueous solution of phenol-formaldehyde resin) and component B (aqueous solution of organic and inorganic acids) in a volume ratio of 4:1. The foam property allows use under various geological and mining conditions.

## **APPLICATION AND USE**

Ekoflex Plus is used for fire and methane hazard prevention by filling voids, sealing mined-out openings & walkways. It can also be used to build or seal insulation and ventilation dams.



#### **ADVANTAGES**

- High efficiency
- Low content of free formaldehyde
- Ability to use under a wide range of geological and mining conditions
- Low reaction temperature
- Good gas-insulation
- Does not disturb gas indicator readings
- Ability to use in environments where fire hazard occurs

## **TECHNICAL DATA**

The data below are laboratory data. They may vary in practice due ambient temperature, pressure and other factors.

# **TECHNICAL PROPERTIES**

#### SYSTEM DATA

Parameter	Unit	Value
Foaming factor	-	30-50
Reaction time - start	[s]	< 2
Reaction time - setting	[min]	< 4
Free HCHO content	%	< 0.1
Compressive strength at 10% deformation	[MPa]	> 0.03
Flammability	-	self-extinguish
Anti-electrostatic	-	dissipative



## **APPLICATION METHOD**

Phenol-formaldehyde foam is supplied through a pump-set with a component volumetric pumping ratio of 4:1. During the pumping, the components are mixed in a static mixer and form foam, which hardens within a few minutes. For details, please see the Application Instructions.

## SAFETY INSTRUCTIONS AND LIMITATIONS

Failure to follow the application equipment operating manual, and particularly its technical condition, insufficient cleaning and lack of maintenance can lead to a change in the ratio of the supplied components which then reduces the effectiveness of foaming or makes it completely impossible. In consequence, the obtained foam might have inadequate parameters (nonhomogeneous structure, inadequate foaming factor, reduced durability). Do not use in poorly ventilated areas.

When applying the product, use standard PPE meant for work with chemicals: safety gloves and goggles, protective clothing etc. Immediately change the clothes if they become soaked with components. For detailed safety information please see the Material Safety Data Sheet.

# PACKAGING AND TRANSPORTATION

Foam components are packed into barrels/canisters with a capacity of 20 or 30 liters. Containers are delivered on pallets. After arranging with the customer, the material can be delivered in alternative packages (for instance 200 liters barrels or 1000 liters containers.)

# **STORAGE AND SHELF LIFE**

The components A and B shall be stored in airtight containers and in dry and well-ventilated areas at 10 - 20°C.

The warranty period for properly stored components is respectively: 2 months for component A (resin) and 12 months for component B (hardener).

#### DISPOSAL

Follow local regulations.

#### **APPROVALS AND CERTIFICATES**

Certificate - safety mark "B" Hygienic assessment (PZH)

## DISCLAIMER

The Minova Logo is a registered trademark.

Copyright © 2019 Minova. All rights reserved

All information contained in this document is provided for informational purposes only and is subject to change without notice. Since Minova cannot anticipate or control the conditions under which this information and its products may be used, each user should review the information in the specific context of the intended application. To the maximum extent permitted by law, Minova specifically disclaims all warranties express or implied in law, including accuracy, noninfringement, and implied warranties of merchantability or fitness for a particular purpose. Minova specifically disclaims, and will not be responsible for, any liability or damages resulting from the use or reliance upon the information in this document.

ME-03.2019/ Ekoflex Plus e01 (March 2019)

#### ADDITIONAL DOCUMENTATION

- Ekoflex Plus komponent A MSDS
- Ekoflex Plus Komponent B MSDS

#### LIST OF REPRESENTATIVES

- AUSTRIA: Minova MAI GmbH
- CZECH REPUBLIC: Minova Bohemia s.r.o.
- FRANCE / BELGIUM: Sales office Minova France / Belgium
- GERMANY: Minova CarboTech GmbH
- ITALY: Minova CarboTech GmbH Italy branch
- KAZAKHSTAN: Minova Kazakhstan LLP
- POLAND: Minova Ekochem S.A.; Minova Arnall Sp. z o.o.; Minova Ksante Sp. z o.o.
- RUSSIA: ZAO "Carbo-ZAKK"
- SLOVAKIA: Minova Bohemia s. r. o., organizačná zložka
- SOUTH AFRICA: Minova Africa (Pty) Ltd.

#### **TECHNICAL DATA SHEET**



- SPAIN: Minova Codiv S.L.U.
- SWEDEN / NORWAY: Minova Nordic AB
- UNITED KINGDOM: Minova Weldgrip Ltd.; Minova International Ltd.
- APAC: Minova Australia Pty Ltd.
- AMERICAS: Minova USA Inc.

## **CUSTOMER SERVICE**

For additional support options available at your area, contact our local offices.

www.minovaglobal.com