

Technical data sheet

MINING GRID OF FIBER GLASS

Inner fencing on sides and ceiling of mine workings



Mining grid of fiber glass comprises two systems of rovings or glass yarns positioned perpendicular to each other, interknitt with a third one, a knitting yarn, and impregnated with PVC-resins plastisol.



Typical application: the mining grid of fiber glass is used as inner fencing for sides and roofs of mine tunnels of different purposes, shapes and sizes, including mounting and break-down chambers in the temperature range of -50°C to $+50^{\circ}\text{C}$. Using mining grids of fiber glass makes it possible to extend service life of support lagging, avoid sparking and accumulating static electricity, substantially simplify mounting the grid on sides and ceiling, consume lagging more savingly thanks to decrease in overlapping.

Physical and mechanical properties

Property	Unit	SGG 40/40	SGG 50/50	SGG 80/80	SGG 100/100	SGG 200/200
Mass per unit area	g/m^2	≥ 300	≥ 350	≥ 450	≥ 650	≥ 700
Axial grid spacing	mm	20-100				
Tensile strength						
Machine Direction	kN/m	≥ 40	≥ 50	≥ 80	≥ 100	≥ 200
Cross-Machine Direction	kN/m	≥ 40	≥ 50	≥ 80	≥ 100	≥ 200
Standard roll size						
width	m	≤ 5				
length	m	10-300				

Manufacture of the material with other physical and mechanical properties is accepted upon agreeing about with a consumer.

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Advantages:

- ✓ Non-flammable: time of burning after being taken out of Bunsen flame is 0 sec; self-ignition temperature is more than 500°C
- ✓ Low stretchability (elongation factor at failure is not more than 4%) and thereby generation of swagging pouches with rock and coal inrush is excluded
- ✓ Durability: depending on customer's requirements and rigidity of rock, tensile strength is from 40 kN/m to 200 kN/m
- ✓ Extended service life: the grid is not rust-prone amidst mining waters and would not degrade in the course of service
- ✓ Ease of installation: flexible fibres at the core of structure enable lagging of turns, corners without additional mounting
- ✓ Elimination of sparking and accumulating static electricity
- ✓ Saving consumption of lagging thanks to decrease in overlapping
- ✓ Light weight of rolls (starting from 15 kg) enables easy transportation of the material under the conditions of shafts and minings



Reference documents:

- GOST R compliance certificate
- Technical specifications TU 2296-071-00204961-2012

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