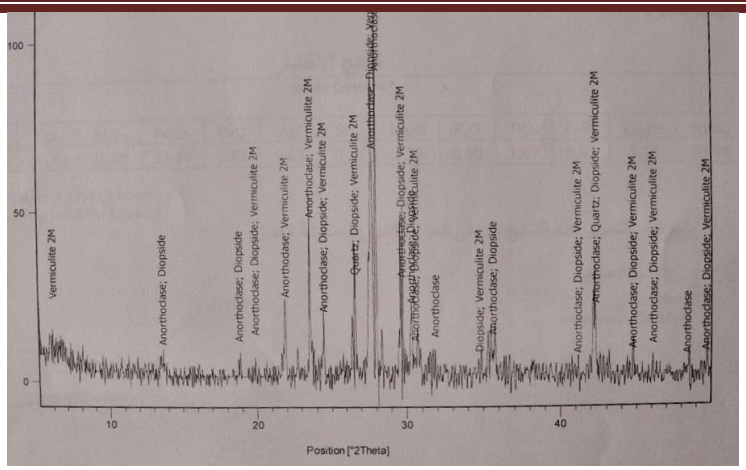
To Whom It May Concern

*GlassRock product, Rock wool Rolls, Thickness **70mm**, Density- **100 kg/m^3** with Galvanized wire mesh (GWM);*

Manufacturer Certificate

*We, **GlassRock** Insulation Company, submit that our Rock Wool Rolls Un Faced and faced with Galvanized wire mesh are Asbestos free with molten chemical composition shown in below table and under beneath figures. Moreover, our products attain very low thermal conductivity **0.034** W/m.K (EN12667) and the products are classified as **A1** fire behavior (Based on **EN13501** & Class **A** fire behavior based on **ASTM E84**) and both reveal non-combustibility of our products.*

Oxides	wt.%
SiO2	41
Al2O3	4
Fe2O3	6.4
CaO	25
MgO	17
K2O	2.5
Na2O	3.5
TiO2	0.5
MnO	0.1
Chlorides	< 10 ppm
PH	7 or slight alkaline

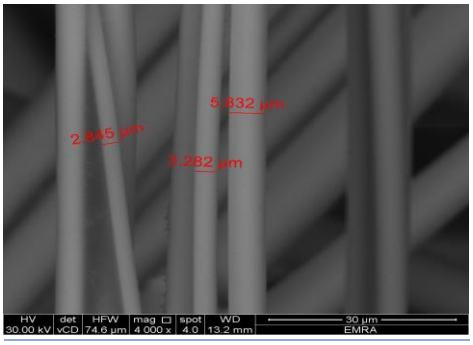


XRD diffractogram shows absence of asbestos mineral in the used raw materials

The identification of the most probable phases is carried out using PANalytical computer certified program * with the aid of the International Center of Diffraction Database (ICDD) ** received with the X-ray diffraction equipment



Photo micrograph thin section "between crossed nicols" shows absence of asbestos mineral and existence of clay, olivine and plagioclase



SEM photo reveals high affinity to good bio-solubility of GR fibers

References:

ASTM C-592: Standard specification for mineral fibre stitched rolls for industrial and pipe insulation.

EN 13162: Standard specification for factory made mineral wool products

BS 5422; 2009: Method for specifying thermal insulating materials for pipes, tanks, vessels, ductwork and equipment

ISO 12241: Thermal insulation for building equipment and industrial installation calculation rules

