

PRODUCT DESCRIPTION

UNIGRAPH is composed of graphite with a strong polymer coating, realised by a non-continuous process. The composition of this material makes it suitable for high temperature (up to 4500C) applications as well as cryogenic (-1960C) ones.

Composed of graphite it is widely usable thanks to its chemical inertness. Unigraph grants stability and creep relaxation of less than 10/12% at temperatures up to 4500C. The behaviour of unigraph in application of thermal cycling and continued exposure to high temperatures is well described on the below chart as well as the comparison of creep values among unigraph and compressed non asbestos sheets. This patent process makes unigraph very easy to cut but also flexible, strong and durable at the same time.

UNIGRAPH 500 HAS A DENSITY OF 1.15 Gr/Cm³

UNIGRAPH 500 HD HAS A DENSITY OF 1.45 Gr/Cm³

UNIMETAL IS REINFORCED WITH WIRE MESH AND IT HAS A DENSITY OF 1.55 Gr/Cm³

The major feature of unigraph is that it is technically comparable to the most popular reinforced graphite sheets but it is comparable to the compressed non asbestos sheets as far as price is concerned.



TYPICAL PHYSICAL PROPERTIES	UNIGRAPH 500	UNIGRAPH 500 HD	UNIMETAL
Peek temperature	650 °C	650 °C	650 °C
Maximum working temperature	450 °C	450 °C	450 °C
Minimum working temperature	-200 °C	-200 °C	-200 °C
Maximum recommended pressure	100 bar	120 bar	150 bar
Thickness	1.5 mm	1.5 mm	1.5 mm
Density of graphite	0.9-1.1 gr/cm ³	1.3-1.5 gr/cm ³	0.9-1.1 gr/cm ³
Ash content	<2%	<2%	<2%
Din3535-6 leakage rate	<0.1 mg/sm	<0.1 mg/sm	<0.1 mg/sm
Din3535-6 compressibility	40-50%	25-35%	40-50%
Din3535-6 recovery	3-7%	3-7%	3-7%
Din3535-6 creep value	5-10%	4-8%	NA
Max Gasket Load 200C	<120 mpa	<120 mpa	<160 mpa
Tensile strength	>4 mpa	>4 mpa	>7 mpa

Temperature and pressure values cannot be reached simultaneously. This technical data sheet is a result of laboratory tests. E.Dobson & Co is issuing this data sheet as a pure informative document. More details and information are available from our technical department.