

### GENERAL DESCRIPTION

**AXEL AXFOLITE 502** is a light building material, lighter than conventional concrete. **AXEL AXFOLITE 502** contains millions of tiny non-connecting air pockets yielding superior thermal insulation property.

**AXEL AXFOLITE 502** also provide strong adhesion to most substrates (e.g. metal and concrete) and strong fire resistance conforming to BS 476.

### RECOMMENDED USES

- \* Roof slab insulation screed panels.
- \* Air ducting system and insulation at AHU room.
- \* Roof soffit insulation and anti-dumping.
- \* Fire retardant and protection to steel structures.

### CHARACTERISTICS & ADVANTAGES

- \* Sound absorption and insulation.
- \* Fire protection
- \* Thermal insulation
- \* Anti condensation
- \* Easy to apply
- \* Lightweight

### COVERAGE

(Coverage may vary depending on substrate condition, temperature and application method)

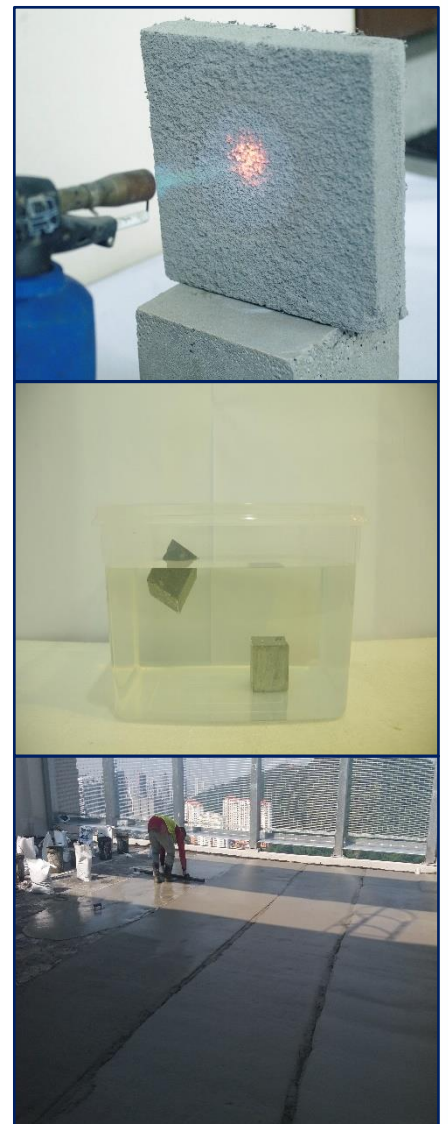
Density (kg/m <sup>3</sup> )	Coverage for 1 set ( 30kg)
600	0.050 m <sup>3</sup> ± 0.002
800	0.038 m <sup>3</sup> ± 0.002
1000	0.030 m <sup>3</sup> ± 0.002
1200	0.025 m <sup>3</sup> ± 0.002
1400	0.021 m <sup>3</sup> ± 0.002
1600	0.018 m <sup>3</sup> ± 0.002

### COLOURS

Grey

### PACKING

30 kg per set



### **STORAGE**

Store in a dry, cool and shaded place. (Avoid from flame and water)

### **SURFACE PREPARATIONS**

The substrate must be clean and free from oil, grease and other contaminants.  
Refer to annex specific details for other applications.

### **METHOD OF APPLICATION**

- \* Ensure that the substrate is clean and free of oil or dust.
- \* One set of **AXEL AXFOLITE 502** included 2 parts of powder (A and B).
- \* Mix powder A with water with a power or paddle mixer until become slurry. Then mix the powder B with water homogeneously.
- \* Below is the table chart of water amount mix with powder A and B for different densities.

Density (kg/m <sup>3</sup> )	Water mix with Powder A	Water mix with Powder B	Total of water for one set 502
1200	7 litres	0.5 litres	7.5 litres
1000	6.5 litres	1.5 litres	8 litres
800	7.0 litres	2.0 litres	9 litres
600	7.5 litres	2.5 litres	10 litres

- \* After that, add in the mixture B into the slurry A and mix for 2-3 minutes.
- \* Pour or pump the mixture and wait for the expansion. Expansion Time is around 40 -60 minutes.
- \* Cut off if have extra and level it with trowel.

### **CLEANING OF TOOLS**

Clean all tools and application equipment with water immediately after use. Hardened and or cured material can only be mechanically removed.

### **TECHNICAL SPECIFICATIONS**

No. of component	Two
Density	Can set from 600-1600 kg/m <sup>3</sup>
Volume of solids	100%
Flammability	Non-combustible (BS476:Part 4:1970)
Expansion reaction	Approximately 1 hours ended the expansion reaction
Compressive strength (28 days)	1-12 Mpa (depend on mix design)

### COMPRESSIVE STRENGTH

**AXEL AXFOLITE 502** is reinforced with fibers to reduce plastic shrinkage and enhance concrete strength.

Concrete cube samples with densities 1200 kg/m<sup>3</sup> (size 5cm x 5cm x 5cm) were tested for compressive strength by Setsco Service (M) Sdn Bhd according BS EN 12390-Part3:2009. Compressive strength for 3 days can reach average 4.6 N/mm<sup>2</sup> while 7.8 N/mm<sup>2</sup> for 7 days.

Concrete cube samples with densities 800 kg/m<sup>3</sup> (size 5cm x 5cm x 5cm) were tested by Sirim QAS with standard ASTM C942-15 and results showed that compressive strength for 7 days can reach 2 N/mm<sup>2</sup>.

Table below showed 28days compressive strength for different densities:

Density ( Kg/m <sup>3</sup> )	Age (Days)	Cube Size ( m <sup>3</sup> ) Length x Width x Height	kN/m <sup>3</sup>	Average Load ( kN)	Average Load (MPa) = Load,kN/2.5mm <sup>2</sup>
600	28 Days Strength	0.05 x 0.05 x 0.05	5.88	3.0	1.2
800			7.85	9.0	3.6
1000			9.81	13.5	5.4
1200			11.77	18.5	7.4
1400			13.73	27.0	10.8
1600			15.69	30.0	12.0

### NON COMBUSTIBLE

**AXEL AXFOLITE 502** is classified as non-combustibility material. Product was tested by Sirim QAS according standard BS 476 Part 4 Fire test on building materials and structure.

3 pcs of **AXEL AXFOLITE 502** samples were tested in furnace with maximum temperature 750C. Test results were indicated that all samples were non-combustible.



### SHELF LIFE

12 months from the date of production if stored properly in original, unopened and undamaged sealed packaging in dry conditions.

The above data is provided in good faith and to the best of our knowledge. However, since application and services conditions are beyond our control, we do not accept liability relating to coverage, performance and injury arising from the use of our products based on the data. Further with the constant advancement of technology we reserve the right to modify data without prior notice and we advise that you check with our Axelchem Technical Department at Tel: 603-6276 2118 the validity of these data especially if more than six months have passed since issue.