

Mine Marshal 8000 tested according to the SANS 10177-2:2005

Fire Testing of materials, components and elements used in buildings
Part 2 :Fire resistance test for building elements

Mine Marshal 8000 test specimens :

- (1) A 600mm x 600mm pine timber block with thickness 35mm. Coated with Mine Marshal 8000 at a nominal thickness between 3-5 mm

(note) We specifically used Pine timber for all our specimens in order to demonstrate the effectiveness of Mine Marshall 8000. All harder timber such as Meranti Saligna etc has got a higher fire resistance as Pine. In addition we have applied a weather resistant top coat, the reason for this is to determine the fire resistance of Mine Marshal 8000 even if a top coat eg, Plascon, Dulux roof paints, enamels are used to cover a Mine Marshal 8000 coating. We have used an enamel for the purpose of the test, the reason why we used enamel is because enamel is most flammable in the event of a fire, any other paints eg waterbased emulsions is less flammable than solvent based paints

The reason why we use the thickness of 35 mm is to simulate building elements such as Pine boarding used in roof construction, partition boards, doors, floorboards etc.

- (2) A 600mm x 600 mm pine block with thickness 75mm, coated with Mine Marshal 8000 at a nominal thickness of 3mm to 5mm

The reason why we use a thickness of 75mm is to simulate roof trusses, wooden beams used in floors walls etc. In addition we have applied a weather resistant top coat, the reason for this is to determine the fire resistance of Mine Marshal 8000 even if a top coat eg, Plascon, Dulux roof paints, enamels are used to cover a Mine Marshal 8000 coating. We have used an enamel for the purpose of the test, the reason why we used enamel is because enamel is most flammable in the event of a fire, any other paints eg waterbased emulsions is less flammable than solvent based paints

- (3) A 600mm x 600mm hollow core door treated with Mine Marshal 8000 clear at a nominal thickness of 2mm to 3mm. The hollow core doors must preferably be dipped in the Mine Marshal clear, this will give a thorough coverage outside and to a certain extent in the inside.

(note) Mine Marshal clear is Mine Marshal without the thickness filler

component.

The reason for this test is to show the effectiveness of Mine Marshal 8000 used on doors. In addition we have applied a weather resistant top coat, the reason for this is to determine the fire resistance of Mine Marshal 8000 even if a top coat eg, Plascon, Dulux roof paints, enamels are used to cover a Mine Marshal 8000 coating. We have used an enamel for the purpose of the test, the reason why we used enamel is because enamel is most flammable in the event of a fire, any other paints eg waterbased emulsions is less flammable than solvent based paints

(4) A 600mm x 600mm IBR roofsheet coated with Mine Marshal 8000 at a thickness of 3mm to 5mm

The reason for this test is to show the effectiveness of Mine Marshal 8000 used on roofsheeting for roofs and warehouse walls. In addition we have applied a weather resistant top coat, the reason for this is to determine the fire resistance of Mine Marshal 8000 even if a top coat eg, Plascon, Dulux roof paints, enamels are used to cover a Mine Marshal 8000 coating. We have used an enamel for the purpose of the test, the reason why we used enamel is because enamel is most flammable in the event of a fire, any other paints eg waterbased emulsions is less flammable than solvent based paints

(5) A 600mm x 600mm frame to simulate a skeleton pack used at Harmony Gold for tunnel supports. An application thickness of 3mm to 5mm is applied

The reason for this test is to investigate the effectiveness of Mine Marshal 8000 used on Mining timber. This frame has cavities in, in order for the flame to pass through the frame in order to expose all sides of the timber to the fire. In addition we have applied a weather resistant top coat, the reason for this is to determine the fire resistance of Mine Marshal 8000 even if a top coat eg, Plascon, Dulux roof paints, enamels are used to cover a Mine Marshal 8000 coating. We have used an enamel for the purpose of the test, the reason why we used enamel is because enamel is most flammable in the event of a fire, any other paints eg waterbased emulsions is less flammable than solvent based paints

(6) A 600mm x 600mm hollow core door panel treated with Mine Marshal 8000 with filler thickener at a nominal thickness of 3mm to 5mm thick

The reason for this test is to investigate if a door will have a higher fire rating, relating to the door panel treated without the filler based thickener. In addition we have applied a weather resistant top coat, the reason for this is to determine the fire resistance of Mine Marshal 8000 even if a top coat eg,

Plascon, Dulux roof paints, enamels are used to cover a Mine Marshal 8000 coating. We have used an enamel for the purpose of the test, the reason why we used enamel is because enamel is most flammable in the event of a fire, any other paints eg waterbased emulsions is less flammable than solvent based paints