

Rubber Sheet (IRP1074) for Vibro Damping Coating (VDC) application

Vibro Damping Coating (VDC) is a multilayer sandwich structure for use in submarine decks and engine rooms for suppressing the structural vibration arising from the operation of onboard machinery. The VDC is fabricated by adhering multiple layers (typically 3 layer) of perforated rubber sheet (IRP1074) and sandwiching the multilayer rubber structure between base structure and constraining layer. The top constraining layer is applied onto the rubber layer by adhesive and the sandwich structure is bonded to the base by mechanical bolting. The perforated rubber layer is made by either punching the perforations on plane rubber sheet using a punching machine or by compressing moulding.



3 layer VDC applied on base structure

Salient Features:

- ❖ Physical appearance – Vulcanised rubber sheet with fabric impression on one side
- ❖ Size of rubber sheet – 4.1m x 800mm x 4mm thickness
- ❖ Application – by adhesive bonding
- ❖ High damping
- ❖ Good strength
- ❖ Good resistance to fuel and oil
- ❖ Can be made using conventional rubber processing machinery

Area of application:

- ❖ Ship/ Underwater Platforms decks and engine room floors

Facility required for manufacturing the rubber sheets:

- Two roll rubber mixing mill (minimum batch size 20kg)
- Rubber dispersion kneader (minimum batch size 20kg)
- Compression moulding machine (platen size 4m x 1m) or Rubber calandering machine with vulcanizer