

Health and Safety Data Sheet . Grey Iron

Material: Grey Iron Castings

Description: Silver grey metal castings containing a minimum 85% of iron, used in a wide range of industrial appliances

Typical Composition range

Total carbon	2.2 . 3.5	
Silicon	1.4 . 2.8	
Manganese	0.5 . 0.8	
Sulphur	0.06 . 0.15	
Phosphorous	0.1 . 1.2	
*molybdenum	0 . 1.0	* optional
*chromium	0 - 2.0	
Copper or nickel	0 - 2.0	
Iron		

Typical Property range

Tensile strength	150 . 400 N/mm
Proof strength (0.1%)	98 . 260 N/mm
Hardness	136 . 307 HB
Melting point Approx	1150°C
Density	7.05 . 7.3 gm/cm

Health Hazards

Grey Iron in its solid form is stable and not hazardous

If there is any drilling, cutting and or grinding of the casting, then it is recommended that personnel wear suitable gloves, eye protectors and a dust mask. Dust from surface grinding should be extracted and/or approved respiratory protection should be worn.

Occupational exposure limits

Exposure limits for iron oxide, fume (as Fe) and respirable quartz, are given in EH40/2005, Table 1: List of approved workplace exposure limits (as consolidated with amendments October 2007).

Fire Hazard

Grey iron castings do not constitute a fire or exposure hazard

Material handling

Cast iron is a heavy material and supplies / products need to be assessed on receipt and appropriate mechanical and manual handling techniques employed to avoid personnel being subjected to lifting or moving excessive weight. Care needs to be taken when handling to avoid potential trap and crush injuries.

We recommend gloves are worn when handling cast iron products.

This data sheet is issued as a guidance document for health and safety purposes only. The information required for this MSDS is obtained from sources which we believe to be reliable. Grey Iron in its solid form is stable and not hazardous