



Grey Cast Iron

Durham Foundry manufactures grey cast iron to ISO 185. Within this standard are a range of grades which can be certified by ultimate tensile strength in N/mm².

There is no elongation data as grey cast iron has a brittle fracture resulting in excellent properties in compression but less so in tension. There is also no chemical data in the standard. Chemical analyses can be supplied but they would be for information only. If castings are ordered with a test certificate, a tensile test is all that would be normally supplied unless the chemical analysis is specifically requested.



Grade	Tensile Strength (N/mm ²)
ISO 185/JL/100	100
ISO 185/JL/150	150
ISO 185/JL/200	200
ISO 185/JL/225	225
ISO 185/JL/250	250
ISO 185/JL/275	275
ISO 185/JL/300	300
ISO 185/JL/350	350

These tensiles are based on results from separately cast test bars. It should be noted that the tensile strength does vary with section thickness which may have a bearing on casting design.

Whilst virtually every casting we make is specified by tensile strength, there is a range of grades within the standard that can be specified by hardness. However, there is no correlation in the standard between these two ranges. If hardness is something you require, please contact us to discuss it.

ISO 185 is not the only standard for grey cast iron. It can be ordered to the Euronorm standard BS EN 1561 where there is a very similar range of grades. There are also comparable standards in the ASTM, DIN and SAE ranges. Other national standards exist along with various trade named standards, most of which are obsolete, the exception to that being the Meehanite range of grey irons.

This data sheet can be read in conjunction with our information sheet for grey irons which can be downloaded from our website at <http://www.durhamfoundry.com/technical-data-sheets.html>

If you need to order a casting in cast iron and are confused by its description, unsure as to which grade you need or it has a specification you don't recognise, please contact us as there is a good chance we will be able to help.

For further information please contact Mike Naylor on castings@durhamfoundry.com or 0044 (0)114 249 4977.