

ADVANTAGES OF FINE GRAINS HIGH-STRENGTH STEELGRADES COMPARED TO THE TRADITIONAL STEELGRADES

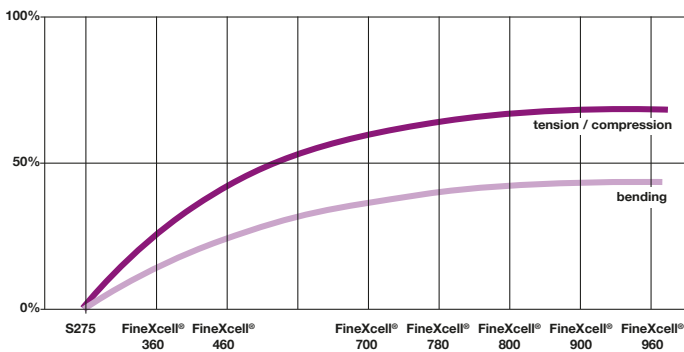
WEIGHT SAVING

When a steel structure subject to high loads has to be built, the weight of the structure itself is a critical issue as far as mobility and costs are concerned.

Therefore the high resistance features of the fine grain high-strength steelgrades are particularly profitable, as they allow to increase the load capability, reducing meanwhile the weight of the structure. These features are particularly favourable for the construction of cranes and self-moving lifting equipments. In such cases the resistance of the sections allows to increase the structure mobility without reducing the lifting capabilities.



**Potential weight savings for construction
high-strength fine-grain steels compared to S275**



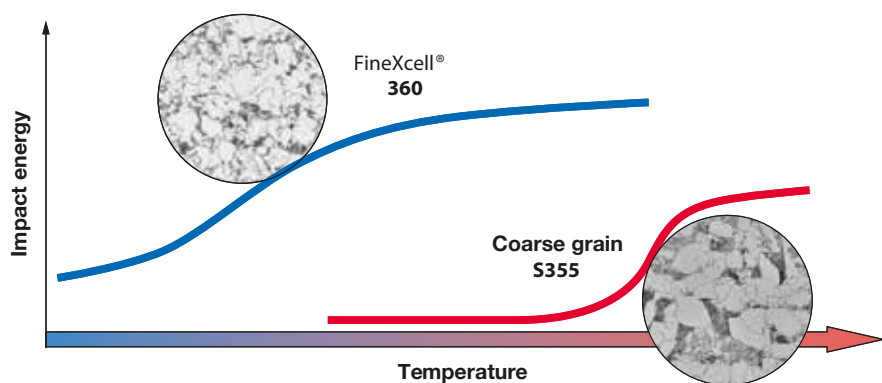
The chart on the left shows the percentage weight reduction that can be achieved through fine grain high-strength steelgrades, according to their different levels of resistance, in comparison to a traditional S275 steelgrade.



LOW TEMPERATURE IMPACT PROPERTIES

The fine grain high-strength steelgrades, thanks to their "fine" structure, give excellent impact properties at low temperatures and resistance to "brittle" crackings.

Thanks to their high impact values at temperatures up to -60°C , these steelgrades are an excellent choice also for applications in cold climates.



The chart on the left shows the difference in the impact values distribution between a fine grain high-strength steelgrade (FineXcell 360) and a traditional S355 steelgrade.