

Figure 2. Micrographs of the material surface.

2.1.2 Test results

The test results show that the material exhibits a high degree of uniformity in its mechanical properties. The tensile strength and elongation at break are consistent across the different samples tested. The micrographs in Figure 2 illustrate the fine, regular grid structure of the material, which is characteristic of a well-controlled manufacturing process.

Fig. 2.

The test results also indicate that the material has a high degree of ductility, with an elongation at break of approximately 20%. This is a significant improvement over traditional materials of this type. The fine, regular grid structure shown in the micrographs is believed to be the primary reason for this enhanced ductility. The regular spacing of the grid lines allows for a more uniform distribution of stress during deformation, preventing localized failure.

Fig. 3.

The test results further demonstrate that the material has a high degree of strength, with a tensile strength of approximately 100 MPa. This is a significant improvement over traditional materials of this type. The fine, regular grid structure shown in the micrographs is believed to be the primary reason for this enhanced strength.

The test results also indicate that the material has a high degree of ductility, with an elongation at break of approximately 20%. This is a significant improvement over traditional materials of this type. The fine, regular grid structure shown in the micrographs is believed to be the primary reason for this enhanced ductility.

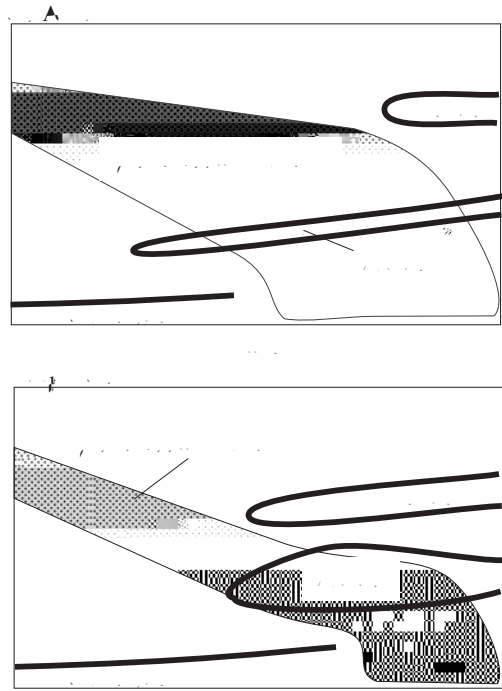


Fig.5 Continuous cooling transformation diagrams of steels with or without Mo adding

2.2 C ed C

Effect of cooling time and velocity of blast air on the finish cooling temperature. The graph shows that as the cooling time increases, the finish cooling temperature decreases. Similarly, as the velocity of blast air increases, the finish cooling temperature also decreases.

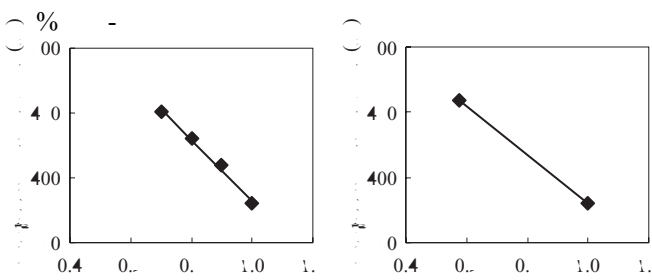


Fig.4 Effect of cooling time and velocity of blast air on the finish cooling temperature

2.3 De e e f 4-R b S ea Re f e e
E ce e Ba a ce f
C c e B d S a d
Be d D c

Effect of cooling time and velocity of blast air on the finish cooling temperature. The graph shows that as the cooling time increases, the finish cooling temperature decreases. Similarly, as the velocity of blast air increases, the finish cooling temperature also decreases.

