Properties Evaluation of Twin Roll Casting Aluminium Strip

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Rolling is a rapid method of metal forming to get the desired thickness. The process essentially consists of passing hot ingots in between the roll rotating in opposite directions at a uniform speed. The space between the rolls could be adjusted to obtain the desired thickness of the rolled section. Twin roll casters are most commonly used machines for the strip casting of aluminium, because they offer low investment and very high operational flexibility. The aluminium strips obtained are subjected to various tests, such as hardness, porosity, visual study, corrosive test, tensile strength, microstructure study and dry abrasion wear test. The aluminium strips are obtained from twin roll casting, strip properties are compared with as cast processed rolled strips. It was found that the most optimal conditions to produce aluminium strips of high integrity were at temperatures of 670 degrees centigrade and rolling speeds of 16 rpm.