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Reduction of rejection rate for high gloss plastics product using six sigma method

Abstract

High gloss plastics part in injection molding industries are widely used in Malaysia. However the high rejection rate in this industries were major problem affecting the economic aspects. This paper presents an approach of implementing six sigma method to reduce the rejection rate in a plastic injection molding process for high gloss plastics part. Define, Measure, Analyze Improve and Control (DMAIC) methodology was applied as basis of the study. By using current process, the average of rejection is 40.6% and the aim of this study is to reduce the rejection rate to less than 10%. All potential factors were taken into account to identify the significant factors. The improvement process was made base on the analysis output. This study was successful with increment in sigma level from 1.74 σ to 3.00 σ .

Keywords

DMAIC; Improvement process; Injection molding; Six sigma