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Dimensions Control Compliance

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Abstract: Variations in characteristics such as weight, size or volume of a product are inherent in the process by which they are manufactured. Control charts are a useful tool to study the behavior of these quality characteristics and identify the variability of the same and get a value judgment for possible causes that may cause variation. Compliance with the declared net weight on consumer items is part of regulatory monitoring conducted by public institutions. The analysis is performed in a company dedicated to the manufacture of school supplies, focusing on a product for children in two forms, strip and bars modeling clay in different colors. The process includes cutting, whose variations in dimensions to maintain appropriate weight leads to visual differences in some cases, it may affect customer perception. Color data are analyzed to rule the composition affecting the stability of the process and the cause of variation. The results show that there are other factors that affect both features and control required to avoid variations that can lead to runaway process.

Keywords: Control charts, runaway process, quality characteristics.