

# No longer erroneous re-jects due to poor quality test charts

## byko-charts, consistent color and gloss guaranteed from print batch to print batch

One of the largest architectural paint manufacturers in the U.S. had problems with the inconsistencies of drawdown charts supplied to them by an industry leading chart manufacturer. Although they never realized it, the measured L\*, a\*, b\* and gloss values of incoming charts varied substantially from print batch to print batch. These variances caused, in several cases, erroneous rejections of paint batches. These variances also caused the addition of pigment to improve contrast ratio when in fact it was not necessary, resulting in wasted raw materials and increased production costs to the paint manufacturer. It was later determined that the inconsistent color and gloss of the charts had caused the paint batches to be rejected when in fact the paint batches had actually been within specification.

As a result of this costly problem, specifications were developed by the paint manufacturer for color and gloss of drawdown charts. All chart vendors must now adhere to this specification for every delivery of charts. Before any new lot of charts can be sold, chart vendors must send samples of each type of chart to the paint manufacturer for approval. Only after meeting these rigorous quality standards can a new lot of charts be sold to them.

By switching to byko-charts, this paint manufacturer has realized improved consistency of the black stripe printed on the drawdown chart. In fact, the variation from lot to lot has dropped to less than 1/5 of what the variation was in the past when they used the competitive product. This has also resulted in improved reliability of their internal contrast ratio test methods, and other color and gloss test methods.

Improvements such as these provide improved product quality, reduced raw material usage due to improper batch adjustments, greater production throughput, and reduced customer complaints. All of these improvements result in measurable cost savings in manufacturing and R&D.

We adhere to a rigid BYK-Gardner specification for color and gloss. Our specification is much tighter than the paint manufacturer's specification for color and gloss, and as a result, byko-charts have never been rejected.

Over the last several years, BYK-Gardner has kept meticulous product consistency records from our print batches, as well as from competitor print batches. This data shows the clear superiority of the byko-charts versus competitive charts from print batch to print batch.

The below charts compare variations in the color and gloss of byko-charts versus a competitor over a 5 year period. The competitive charts show significantly greater color and gloss variations.

BYK-Gardner goes to great lengths to assure the quality of all the charts before, during and after the production process. A BYK-Gardner quality technician is on site testing the charts as lots are being produced. Prior to a lot being released for sale, random samples are collected across the entire chart run and subjected to extensive testing in the BYK-Gardner laboratory.

Storage of drawdown charts has also been found to be a serious problem when less than "ideal" storage conditions are used. For instance, in the hot humid days of summer, boxes of drawdown charts that are stacked in a warehouse or a delivery truck can quickly deteriorate making them totally unusable. Charts can stick together causing the coatings to be pulled off when attempts are made to separate the charts. Charts can also curl under high humidity conditions if not properly protected. ASTM D-4946 is a procedure to test for blocking (resistance of surfaces to stick together). BYK-Gardner had an independent laboratory conduct a test on our charts and the competitive drawdown charts using the ASTM D-4926 method. The byko-charts passed the test and the competitive charts failed. To prevent blocking and curl, BYK-Gardner wraps each box of byko-charts with a protective film that guards against humidity in the warehouse and during shipment.

