

Why do you need Bar Code Testing:

Bar Code Certificate of Conformity and or Bar Code Verification Certificate.



The rules on bar code size, placement and quality of print were established in 1974 and have changed very little since then. Printers and Graphic artists have been printing bar codes since that date, altering bar code height/width, and quality with little or no consequences. In 1994, the Grocery Products Association of Canada was the first organization in the World to ask for Certificates of Bar Code grade called Bar Code Verification reports, a Legal Certificate of the bar codes prior to a product entering their system. At the time, bar codes were scanning at about a 76% passing grade ratio. Near the same time Wal-Mart, K-Mart, Target, Home Depot and others adopted a similar pre-authorization of Bar Code Procedure.

All of these organizations needed to enforce the old bar code rules because of supply chain speed and accuracy. At a 76% good-read rate, the entire (EDI) Electronic Data Interchange system was failing.

Shortly after adopting a pre-entrance bar code test, or Certification, some manufacturers were forced through fines and levies to improve to the minimum passing bar code standards.

The results from the initial enforcements were that bar codes went from a 76% first read rate to almost 90%. But in order for EDI systems to work efficiently, bar code read rates need to be 100%.

Of course, the Wal-Marts of the world then enforced the rule as a standard procedure and no new products were allowed to enter the system unless they had a passing Bar Code Verification Report, or called a Certificate of Bar Code Conformance.

The bar code standards, and or potential fines are enforced at different levels retailer by retailer. The rules for bar codes are the same worldwide, it seems each Corporation applies or does not apply fines or restrictions to bar codes that do not pass the standards.

This is very confusing to Printers and Graphic Artists because for years corporations the size of Sony produced bar codes that were below the minimum grade and those codes were not seen as a problem. All of a sudden, when products were introduced to a retailer who had a Bar Code pre-entry certification program, most bar codes presented, including Sony's failed the ANSI / ISO standards.

Graphic artists and printers worldwide are still encountering this and seem to think

the rules have changed on bar codes. The rules have not really changed, its just some Retailers have elected to apply the standards and ask for Certification of a Bar Code.

When you sign the marketing agreement with the Retailer. The marketing agreement can be a 50 plus page document that states delivery, price condition of goods, a lot of information. It usually contains a simple paragraph somewhere hidden within the document that states you agree that the product you supply will have bar codes that meet the (ANSI & ISO) standards (American National Standards Institute & International Standards Organization). And if the Bar Codes do not meet those standards, you agree to the fines and levies as indicated in the appendix of the marketing agreement. There is no standard fine schedule, the fine amounts are usually based on the cost of manually fixing the inventory because of bar codes that have messed up the entire EDI process. We have helped clients who have been involved with fines in excess of \$395,000.00 for bad bar codes. Commonly, 1st fines are a minimal amount and you are given 30 days to “ fix “ bar codes in store.

You can sue a Printer and Graphic Arts firm after a bad bar code is rejected, but in most cases we see the legal argument that you are the owner of the registered bar code number, and you received all the rules when you received the number from GS1, so ultimately, you control the quality spec of the printed bar codes as you have those rules, and bottom line, YOU signed the proof.

As I mentioned, printers and graphic artists for years have been producing illegal bar codes without getting fines, and do NOT know that the bar codes they produce are actually below the ANSI/ISO standards. Only when a Certificate of Conformity (Verification Report) is made, does a bar code actually show up as failing. Scans, yes all bar codes almost 99% of the bad bar codes scan, but can still fail the standards. Scanners after all are not verification devices. A bar code scanner reads a bar code at up to 6,000 times a second until it gets a good read. Printers and Graphic artists have scanners in plant, and " scan" the printed bar codes. They will be happy to sign a waver that the bar codes supplied " scan ". This is not a fraud on their part, its ignorance in that they believe the scan or green light on a scanner means that it is a good bar code and will scan at the till. Less than 5% of Printers and Artists actually have Bar Code Verification devices, let alone check the bar code height which must be measured manually and then compared to the package size. ALL under height Bar Codes MUST qualify for “ The Small Package Exemption Rules “. Bar codes that are “ scanned “ but error corrected at the till because of poor quality and or short in height , are recorded as such, and if excessive error correction is required, that bar code will be subject to fines.

The actual graphic artist and printer must get the ANSI / ISO standards and specifications and study them. In order to understand the rules, they must join their local (country) GS1 office to be eligible to access the rules. When checking we find less than ½ of 1% of artists and printers are registered with GS1, so YOU are the holder of the rules.

The bar code number is the property of the food, or product manufacturer. When they applied for that bar code number they were given all of the rules from GS1 for bar codes. Unfortunately, again, they assume the printer they deal with knows the rules, and trusts them to print the codes. Since, in all likelihood, that printer has yet to be fined and their in-house scanner scans the codes, They happily admit they can do

good bar codes.

The print and graphic arts industry has almost zero members with GS1 other than the 5 of us who have taken the time to apply and get certified. They do not know of GS1, and I am sorry to say, ignorant of the rules to produce passing grade bar codes. I have been in the Print industry for over 40 years and to this day it amazes me the lack of knowledge within my Print industry on Bar Codes.

A bar code that is faxed, then crushed, then faxed again will scan at the till so fast, you will not know it was a bad bar code but that code WILL be error corrected by the scanner. However, that till will record that it took 1/10th of a second longer, and 1,100 scans to get a good read = a potential \$ fine.

The ANSI / ISO standards say that a bar code to make MINIMUM standards to pass will scan at a rate of 99.999% first read rate as a passing "C" grade code.

That 99.999% 1st read rate was determined based on pre-press, and press equipment in 1974, so in reality its not that difficult for a printer to make that grade, if they know and apply all the GS1 rules. Unfortunately, there are still 20% of bar codes that scan, but do not qualify for a passing grade bar code = \$ fineable.

The biggest mistake we see, is not always press quality, its truncation of the bar code or shortening the top off a bar code.

NCR and Metrologic, the largest flat bed scanner manufacturers in the world, came out with their newest fast read till scanners a few years ago . The engineers designed the machine based on the 1974 specification, that all bar codes MUST be full height (Nontruncated), unless the package qualified for the small package exemption.

The new scanners scans a bar code in 2 half's at a 45 degree angle for each half. Its easy then to see why all of a sudden short bar codes are no longer scanning at first read rates at the till. The 45 degree angle means that if a bar code is short, they simply balk and take many cross scans to read, in effect a shot code will ALWAYS kick a scanner into error correction mode..

There is no way of knowing how many of those new generation scanners have been installed by the retailers. In the case of Walmart, scanners are replaced daily system wide, you can see the problem coming, and has been getting worse over the last 4 years with all retailers.

In conclusion, you are on the hook for any fines and/or levies for bar codes that do not meet the ANSI/ISO standards, as you are signing the marketing agreement. The printers and or graphic artists in law suits have lost cases simply because they are assumed to be an authority on Bar Codes as they print so many of them.

Ultimately, if a bar code fails, the retailer will ask you to remove the product and re-label it at your cost. Recovering these associated costs will have to form part of your recovery suit to the printer.

In one instance a client I worked with had recovery costs over \$300,000.00. They had 29 semi's of product on the road, in the DC's, and on the shelf at a major retailer who demanded it to be relabeled, above the cost of initial fines. The printer involved swore he would go to court to testify against K-Mart that the bar codes were good, because all of his internal test equipment showed the bar code " scanned " as a grade "A" to the ANSI/ISO standard.

In fact, the bar code was a grade "A", but was truncated in height, therefore failed

the Verification test parameters, and was a bad bar code.

It's hard to protect your company, as the printers and graphic artists will be adamant that any bar code they print will scan. They will insist they have never had an issue, why do you need to pre-test, or test our bar codes.

In the rare case that the product could pass under the small package exemption clause, we can assess that for you, as we are authorized to do so. Final actual grade cannot be determined until the bar code is actually printed on the finished materials. The bar code test equipment reads the black lines, and white space between to a tolerance of 660 billionths of a meter. You can see by the measurement, a proof is useless to test the quality of print, a proof will tell us how good the proof printing machine is. We, or the industry, needs the final packaging, as printed, to test the bar code against the standard. We do issue interim reports on proofs, but only look at measurements, not the actual grade of the code. The grade can only be determined with the finished off press printed sample.

PaperChase is Certified BY GS1 as a bar code test facility, authorized to issue legal Certificates of Conformity also know as Bar Code Verification Report..