

# The Difference Between “Different” and “Better”

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Companies that make only urethane plates and dumbbells and not rubber, argue that urethane is better than rubber. Companies that make rubber plates and dumbbells and not urethane, argue that rubber is better than urethane. Since Ivanko makes products out of both materials, we don't have to argue which is better. We can talk about how they are different, and let you decide for yourself based on your preferences.

A little known fact is that urethane (also called polyurethane) is actually one of 14 materials in general use classified by chemists as “rubber”. These forms are nitrile, styrene-butadiene, chlorosulfonated polyurethane, ethylene-propylene, silicone, fluorosilicone, fluoroelastomer, polyacrylic, neoprene, butyl, polysulfide, and polyisoprene, urethane, and natural rubber. In fact, urethane is often called “urethane rubber” to distinguish it from these other forms of “rubber”.

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Although that may be more information than you want to think about, it's really much simpler than that. The basic difference between what we call “rubber” and “urethane” relate to the soft — hard segment continuum. Rubber is generally softer. Urethane is generally harder. What rubber gains by being softer is more resiliency or cushioning on impact, and better elastic memory. What urethane gains by being harder is superior engraving, and better resistance to surface degradation. Some clubs prefer soft, and others prefer hard. We'll cheerfully accommodate either wish.

The most common argument made against rubber, by companies that offer only urethane and not rubber, is that rubber has an odor problem. The simplest way to clarify that notion is to say that any one of the 14 forms of rubber could be formulated with an odor problem, or without an odor problem. There is nothing



**Ivanko's Rubber Dumbbell first introduced in 1983 has been redesigned and reengineered 51 times to yield a rubber dumbbell that is indestructible, odorless, gentle on equipment, and safe, with Ivanko's PermaLock™ fastening system that requires 400 foot pounds of torque to twist apart.**

special about any one form of rubber that makes it more susceptible to odor than any of the 13 other forms. Like everything else, you just have to do it right. Without going into how to make odorless rubber, we can tell you that most of the rubber-coated products

coming out of China are made from natural virgin rubber which has been sulfur cured. This sulphur content accounts for some of the odor problem. In addition, the Chinese have been known to dump used crankcase oil and other toxic wastes into their



**Ivanko's Colored E-Z Lift Plates put to rest the myth that you couldn't get brilliant color reproduction in rubber.**

rubber formula as an inexpensive way to get rid of them. This is often the reason you can smell some competitors' products from ten feet away at a trade show.

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Eliminating a potential odor problem in rubber is just one of many examples of how formulas and fabrication can be manipulated to achieve better performance. Another example is color. It was once thought that you couldn't get brilliant color



**The first Urethane Plates introduced in 1983 by Superior Barbell had problems with splitting. Like many other problems with rubber and urethane, this one was solved through a combination of reformulation and advances in urethane molding technology.**

reproduction with rubber. We put this myth to rest in 2001 with our colored E-Z lift rubber plates. Clubs reported that members would wait in line to use the colored plates while the black and gray iron sat idle. These plates also make strength equipment look better. Manufacturers of strength equipment use our colored E-Z Lift plates to make their equipment look better in their trade show booth. Clubs use them to enhance the look and feel of their weight rooms, because aesthetics are as important in the weight room as they are in all the other areas of the club.

It was also once thought that rubber was not durable. We knew a more durable rubber could be achieved simply through trial and error until we found the right formulation. The result is Ivanko Rubber Dumbbells and Plates that have been in gyms for twenty years or more, and they're still holding up fine.



**Urethane is easier to engrave, with more precise color reproduction and detailing.**

Urethane has not been without similar problems over the years. One of the early problems when it was first introduced in 1983 by Superior Barbell was that it would split. One possible cause was formulation deficiencies that over 23 years of trial and error have been corrected. Another reason we discovered recently is that some manufacturers skimp on the amount of urethane they apply. We have a penchant for cutting products in half to discover things that the customer or end user will never see. What we've found is that an Ivanko Urethane Dumbbell has a thicker urethane coating than any other we checked. We use 1/2 inch, which is almost twice as much as the second best

dumbbell. On one competitor's dumbbell the thickness of urethane was only a little more than the thickness of a heavy coat of paint. Ivanko's 45 pound urethane plate uses more than 6-1/2 pounds of urethane versus 4-1/2 pounds for the closest competitor. The thicker urethane coating provides better cushioning for softer, gentler contact with equipment and furnishings. All cut samples are tagged and safely stored in the company vault for future comparisons to see if anything has changed.



**It wasn't rocket science to achieve a more pleasing satin finish that is also easier to grip than shiny surfaced plates.**

Another complaint about urethane is that it can have a plastic-looking surface that some customers do not like. Ivanko solved this problem by sand

blasting the inside of the mold to provide a little more texture to the surface. This also improves the surface coefficient of friction so that products don't slip out of users' hands as easily. To further enhance gripability for perspiring users, we've recently added a knurled surface on each of the seven grip areas for an even surer grip. A patent on this feature is currently pending.

We've been constantly perfecting our rubber products since 1983, and our urethane products since 1999. Perfection is an elusive goal. We're never satisfied, never finished. But with our current rubber and urethane formulas you can expect extremely long lasting products. You can also expect safe, user friendly products, easier to grip and hold, gentle on upholstery and powder coating, and that require little or no cleaning. And you can expect them to be even better year after year.

*Ivanko Barbell Company was founded by Tom Lincir in 1967, and it is the leading provider of professional and commercial grade barbell and dumbbell products worldwide. Your comments or questions are welcome. Contact Chet Groskreutz at Ivanko Barbell Company, call toll free 1.800.247.9044 ext. 209, send correspondence to P.O. Box 1470, San Pedro, CA U.S.A. 90733, or e-mail [chet@ivankobarbell.com](mailto:chet@ivankobarbell.com)*

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