## **Extruded Material Comparison Chart**

|                        | Kent Elastomer Products, Inc. Materials Offered   |   |  |  |
|------------------------|---|---|--|--|
|                        | TPR   | TPE   | PVC  | Silicone   |
| Classification         | FDA & NSF Grades<br>available   | FDA & USP class VI grades available.  | FDA & USP class VI<br>& NSF grades<br>available.   | Meets FDA & USP<br>Class VI<br>standards.  |
| Advantages             | A soft, colorable,<br>specialty thermoplastic.<br>It complies with NSF<br>61 for plumbing<br>applications in contact<br>with potable water and<br>NSF 51 for food<br>processing equipment.<br>It is polyolefin based<br>and completely<br>recyclable. | TPE's in medical devices<br>offer numerous choices<br>for effective, safe medical<br>device functionalities. The<br>growing trend to<br>eliminate natural rubber &<br>PVC due to expanding<br>government regulations<br>make TPE a wise and<br>prudent choice for new<br>and existing applications. | Our Vinyl Food Grade<br>Tubing is designed for<br>laboratory, food, and<br>medical applications. A<br>wide range of<br>compounds provides<br>excellent surface quality<br>and physical properties<br>essential for most<br>applications.                               | Excellent<br>biocompatibility. No<br>leachable additives or<br>plasticizers. Fungus-<br>resistant. Good over<br>a wide temperature<br>range. Minimal<br>tendency to take a<br>set. |
| Physical<br>Properties | Good Colorability,<br>Fatigue Resistance,<br>Good Chemical<br>Resistance,<br>Dimensional stability,<br>Heat Aging<br>Resistance, Low<br>Compression Set, Low<br>Temperature Flexibility,<br>Ozone resistance,<br>Recyclable Material.                 | Low levels of<br>extractables, excellent<br>sealing and adhesion<br>performance, soft &<br>flexible, latex like in feel<br>and elongation,<br>dimensional stability,<br>good chemical resistance,<br>ease of sterilization, good<br>weather resistance,<br>recyclable.                              | Water clear, Phthalate<br>(DEHP) free available,<br>self-extinguishing,<br>excellent corrosion and<br>weather resistance,<br>impact resistant, safety<br>and chemical stability and<br>biocompatibility, chemical<br>resistant and low cost,<br>ease of sterilization. | Thermoset rubber.<br>Good compression set.<br>Soft, flexible<br>materials. Translucent<br>or clear.  |
| Chemical Resistance    |   |   |  |  |
| Hydrocarbons           | Fair  | Poor  | Poor   | Fair   |
| Acids                  | Excellent   | Good  | Fair   | Fair   |
| Bases                  | Excellent   | Good  | Good   | Fair   |
| Sea Water              | Excellent   | Excellent   | Excellent  | Excellent  |
| Water                  | Excellent   | Excellent   | Excellent  | Excellent  |
| Temperature<br>Range   | -60 to 275°F  | -50 to 210°F  | -30 to 200°F   | -58 to 446°F   |
| Typical Pricing        | \$\$\$\$  | \$\$\$  | \$\$   | \$\$\$\$\$   |

\* The buyer must perform all tests necessary to confirm whether the product and its performance and qualities are suitable for the intended application. Final determination of fitness of the product for the intended application is the buyer's responsibility. Kent Elastomer Products, Inc., shall not be liable for any misuse or misapplication of its products.