Disposable Single-Use Syringes

General Information

Materials
BD 1mL Luer-Lok™ Syringe (309628, 309637, 309648) has a barrel composition of polycarbonate. This item contains BPA.
Barrels, Plunger Rods, Tip Shields ........................................ Polypropylene
Stoppers............................................................................... Latex-Free Elastomer
Lubricant ................................................................................... Silicone

Radiation Sterilized/Qualified

Volumetric Accuracy*
+/- 5%
*For 1mL or smaller, accuracy below 0.2mL is +/-0.07mL Per ISO 7886-1

Print*
permanent-type black ink
*Resistant to haemosol, water, 70% isopropyl & 70% ethyl alcohols

Pressure Rating
will withstand 45psi of water for 30 seconds (ANSI/ISO)

BD General Content Information

BD syringes and syringe needle products are not made with latex content
BD syringes do not contain DEHP
BD syringes, with the exception of the 1mL Luer-Lok™ offering noted above, do not contain BPA
BD syringes are not made with BSE or TSE content†

†The raw materials used in the manufacture of these devices do not contain any animal tissue but may contain very small amounts of animal derived raw materials. These products are manufactured using polymer resins which may contain very small amounts of surfactants or fatty acids derived from tallow. Our resin suppliers have confirmed that these tallow derived materials have been produced using multiple cycles of conditions at least as rigorous (and normally more rigorous) as those specified in Annex C.5 of EN ISO 22442-1. Therefore, the raw materials meet or exceed the requirements of EN ISO 22442-1. Based upon this information, these products are considered not to present any risk with respect to TSE or other animal borne diseases.

Tip Dimensions

I.D.
0.071 in/1.775mm (ISO 594-1 & 2)

O.D.
0.155 in - 0.170 in/3.87mm - 4.250mm
6% taper tip/0.25 in back (ANSI/ISO, ISO 594-1 & 2)

Length
0.30 in - 0.35 in/7.5mm - 8.75mm

Thread
double start, right hand, 5mm lead (ISO 594-1 & 2)
internal diameter between threads ............................................0.311 in/7.9mm
internal diameter at threads .................................................0.279 in/7.09mm

Unit Packaging

BD 1mL to 10mL syringes, made in USA, have a lacquer-coated top web and a polyester-woven bottom web. Both are made without latex content.
BD 20mL to 60mL syringes, made in USA, have a nylon film top web and polyester bottom web. Both are made without latex content.
BD tests for ink permanency following USP 797 wipe down recommendations.

Standards Information

All Syringes Meet or Exceed the Following Standards*:
ISO 7886-1 - sterile hypodermic syringes for single use
ISO 594-1 & 2 - conical fittings with 6% luer taper for syringes

Scale
Markings
Major Grad. (each)
Minor Grad. (each)
1mL tuberculin
1/10mL
1/100mL
1mL insulin u-100
10 units
2 units
3mL
1/2mL
1/10mL
5mL
1mL
1/5mL
10mL
1mL
1/5mL
20mL
5mL
1mL
30mL
5mL
1mL
60mL
10mL
1mL

Waste Space (maximum, w/o needle)

<table>
<thead>
<tr>
<th>Syringe Size</th>
<th>1mL</th>
<th>3mL</th>
<th>5mL</th>
<th>10mL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume</td>
<td>0.07mL</td>
<td>0.07mL</td>
<td>0.075mL</td>
<td>0.10mL</td>
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</table>

<table>
<thead>
<tr>
<th>Syringe Size</th>
<th>20mL</th>
<th>30mL</th>
<th>60mL</th>
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</thead>
<tbody>
<tr>
<td>Volume</td>
<td>0.15mL</td>
<td>0.17mL</td>
<td>0.20mL</td>
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## Dimensional Information

<table>
<thead>
<tr>
<th>Gauge Description</th>
<th>MIN (inches)</th>
<th>MAX (inches)</th>
<th>MIN (mm)</th>
<th>MAX (mm)</th>
<th>MIN (mm)</th>
<th>MAX (mm)</th>
<th>MIN (mm)</th>
<th>MAX (mm)</th>
<th>MIN (mm)</th>
<th>MAX (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>18G Reg. Wall</td>
<td>0.0495</td>
<td>0.0505</td>
<td>0.0315</td>
<td>0.0345</td>
<td>0.008</td>
<td>0.009</td>
<td>1.26</td>
<td>1.28</td>
<td>0.80</td>
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<tr>
<td>18G Thin Wall</td>
<td>0.0495</td>
<td>0.0505</td>
<td>0.0365</td>
<td>0.0395</td>
<td>0.0055</td>
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<td>19G Reg. Wall</td>
<td>0.042</td>
<td>0.043</td>
<td>0.0255</td>
<td>0.0285</td>
<td>0.00725</td>
<td>0.00825</td>
<td>1.07</td>
<td>1.09</td>
<td>0.65</td>
<td>0.72</td>
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<tr>
<td>19G Thin Wall</td>
<td>0.042</td>
<td>0.043</td>
<td>0.0295</td>
<td>0.033</td>
<td>0.005</td>
<td>0.00625</td>
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<td>1.09</td>
<td>0.75</td>
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<tr>
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<td>0.0355</td>
<td>0.036</td>
<td>0.023</td>
<td>0.025</td>
<td>0.0055</td>
<td>0.00625</td>
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<td>0.91</td>
<td>0.58</td>
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<td>20G Thin Wall</td>
<td>0.0355</td>
<td>0.036</td>
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<td>0.0045</td>
<td>0.00525</td>
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<td>0.91</td>
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<td>21G Reg. Wall</td>
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<td>0.0195</td>
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<td>0.0055</td>
<td>0.00625</td>
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<td>0.83</td>
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<tr>
<td>21G Thin Wall</td>
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<td>0.0325</td>
<td>0.0215</td>
<td>0.0235</td>
<td>0.0045</td>
<td>0.00525</td>
<td>0.81</td>
<td>0.83</td>
<td>0.55</td>
<td>0.60</td>
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<tr>
<td>22G Reg. Wall</td>
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<td>0.0285</td>
<td>0.0155</td>
<td>0.0175</td>
<td>0.0055</td>
<td>0.00625</td>
<td>0.71</td>
<td>0.72</td>
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<tr>
<td>22G Thin Wall</td>
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<td>0.0285</td>
<td>0.0175</td>
<td>0.0195</td>
<td>0.0045</td>
<td>0.00525</td>
<td>0.71</td>
<td>0.72</td>
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<td>23G Reg. Wall</td>
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<td>0.0255</td>
<td>0.0125</td>
<td>0.0145</td>
<td>0.0055</td>
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<td>0.0255</td>
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<td>24G Reg. Wall</td>
<td>0.022</td>
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<td>0.0115</td>
<td>0.0135</td>
<td>0.0045</td>
<td>0.00525</td>
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<td>0.57</td>
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<td>0.34</td>
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<tr>
<td>24G Thin Wall</td>
<td>0.022</td>
<td>0.022</td>
<td>0.0135</td>
<td>0.0155</td>
<td>0.0035</td>
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<tr>
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<td>0.0115</td>
<td>0.0045</td>
<td>0.00525</td>
<td>0.51</td>
<td>0.52</td>
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<td>0.29</td>
</tr>
<tr>
<td>25G Thin Wall</td>
<td>0.02</td>
<td>0.0205</td>
<td>0.0115</td>
<td>0.0135</td>
<td>0.0035</td>
<td>0.00425</td>
<td>0.51</td>
<td>0.52</td>
<td>0.29</td>
<td>0.34</td>
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<tr>
<td>26G Reg. Wall</td>
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<td>0.0185</td>
<td>0.0095</td>
<td>0.0115</td>
<td>0.0035</td>
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<td>0.29</td>
</tr>
<tr>
<td>27G Reg. Wall</td>
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<td>0.0165</td>
<td>0.0075</td>
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<td>0.0035</td>
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<td>28G Reg. Wall</td>
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<td>0.0135</td>
<td>0.0065</td>
<td>0.008</td>
<td>0.00275</td>
<td>0.00325</td>
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<tr>
<td>30G Reg. Wall</td>
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<td>0.0125</td>
<td>0.0055</td>
<td>0.007</td>
<td>0.00275</td>
<td>0.00325</td>
<td>0.30</td>
<td>0.32</td>
<td>0.14</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Conversion factors: mm to in - multiply by 0.03937
in to mm - multiply by 25.4

## Material Information

<table>
<thead>
<tr>
<th>Material</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needle Hub</td>
<td>Color-Coded Polypropylene</td>
</tr>
<tr>
<td>Needle Shield</td>
<td>Polypropylene</td>
</tr>
<tr>
<td>Bonding Agent</td>
<td>Epoxy</td>
</tr>
<tr>
<td>Lubricant</td>
<td>Medical Grade Silicone</td>
</tr>
<tr>
<td>Needle</td>
<td>Type 304 Stainless Steel</td>
</tr>
</tbody>
</table>

## Composition of Type 304 Stainless Steel (%)

- Chromium: 18 - 20%
- Nickel: 8 - 12%
- Manganese: 2.0%
- Silicon: 1.0%
- Phosphorous: 0.045%
- Sulfur: 0.03%
- Carbon: 0.08%
- Iron: Balance

BD needles do not include the following elements: DEHP, BPA, Natural Rubber Latex, BSE/TSE

## Standards Information

- All Needles Meet or Exceed the Following Standards:
  - ISO 7864 : 1996 sterile hypodermic needles for single use
  - ISO 9626 : 1995 stainless steel tubing for manufacture of medical devices

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## Unit Packaging

- BD Conventional Needles use a lacquer coated paper top web and polyester bottom web
- BD Sharps Safety Needles use a nylon film top web and a polyester bottom web

## Packaging Information

<table>
<thead>
<tr>
<th>Shelf Box Dimensions</th>
<th>Case Dimensions</th>
<th>Weight</th>
<th>Cube</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.5 L x 3.325 W x 3.25 H</td>
<td>17.562 L x 6.875 W x 4.562 H</td>
<td>3 lb. 11 oz.</td>
<td>0.3</td>
</tr>
<tr>
<td>4.5 L x 3.325 W x 3.75 H</td>
<td>17.562 L x 7.875 W x 4.562 H</td>
<td>4 lb. 5 oz.</td>
<td>0.4</td>
</tr>
</tbody>
</table>

BD Medical Systems
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www.bd.com