### 11.10 Plugs, designs and logos

11.10.1 Plugs may be inserted for the purpose of re-drilling the ball.
11.10.2 Designs may be imbedded in the ball for guides, observation, or identification purposes, provided such designs are flush with the outer surface of the ball.
11.10.3 In all cases there shall be no interior voids.
11.10.4 Plugs and designs must be made of material similar to, although not exactly the same as the original material of which the ball was made, and shall otherwise comply with all other specifications for a bowling ball. Density not to exceed 1.5 grams per cubic centimeter.

### 11.11 Manufacturing specifications

11.11.1 The manufacturing specifications such as size, roundness, hardness, radius of gyration, coefficient of restitution, coefficient of friction are stated in the USBC Equipment Specifications Manual.

### 11.12 Drilling specifications

11.12.1 The following limitations, as specified, shall govern the drilling of holes in the ball.
11.12.2 Holes or indentations for gripping purposes shall not exceed five and shall be limited to one for each finger and one for the thumb, all for the same hand. The athlete is not required to use all finger holes in any specific delivery, but they must be able to demonstrate, with the same hand, that each gripping hole can be simultaneously used for gripping purposes. Any thumb hole that is not used for gripping purposes during the delivery would be classified as a balance hole.
11.12.3 (until August 1, 2020) One hole for balance purposes not to exceed $1 \frac{1}{4}$ inch ( 31.8 mm ) diameter. (Including the surface opening).
11.12.4 No more than one vent hole to each finger and/or thumb hole not to exceed $1 / 4$ inch ( 6.4 mm ) in diameter. (Including the surface opening).
11.12.5 One mill hole for inspection purposes not to exceed $5 / 8$ inch ( 15.9 mm ) in diameter and $1 / 8$ inch ( 3.2 mm ) in depth.

### 11.13 Balance

11.13.1 The following tolerances shall be permissible in the balance of a bowling ball used in sanctioned competition.
11.13.2 A. Weight more than 10 pounds ( 4.53 kg )
a) Not more than 3 ounces ( 85 grams) difference between the top half of the ball (gripping holes side) and the bottom half of the ball (side opposite the gripping holes).
b) (until August 1, 2020) Not more than 1 ounce (28 grams) difference between the half of the ball to the left and the half of the ball to the right of the center of grip (side weight).
c) (until August 1, 2020) Not more than 1 ounce (28 grams) difference between the half of the ball toward the thumb hole side of the center of grip and toward the finger holes side of the center of grip (thumb/ finger weight).
d) A ball used without any gripping holes or indentations may not have more than 1 ounce of difference between any two halves of the ball.
11.13.3 For balls without a balance hole not more than 3 ounces ( 85 grams ) between any two halves of the ball. A ball used without any gripping holes or indentations may not have more than 3 ounces ( 85 grams) of difference between any two halves of the ball.
11.13.4 Weight 10 pounds to 8 pounds ( $4.53-3.62 \mathrm{~kg}$ )
a) Not more than two (2) ounces $(57 \mathrm{~g})$ difference between top half of the ball (finger hole side) and the bottom half (side opposite the finger holes)
b) Not more than three quarters (3/4) ounce (21 g) difference between the sides to the right and left of the finger holes or between the sides in front and back of finger holes
c) A ball drilled without a thumbhole may not have more than three quarters (3/4) ounce (21 g) difference between any two halves of the ball
d) A ball drilled without any finger holes or indentations, may not have more than three quarters (3/4) ounce ( 21 g ) difference between any two halves of the ball
e) A ball used without any hole or indentations may not have more than three quarters (3/4) ounce ( 21 g ) difference between any two halves of the ball.
11.13.5 Weight less than 8 pounds ( 3.62 kg )
a) Not more than three quarters (3/4) ounces $(21 \mathrm{~g})$ difference between top half of the ball (finger hole side) and the bottom half (side opposite the finger holes)
b) Not more than three quarters (3/4) ounce ( 21 g ) difference between the sides to the right and left of the finger holes or between the sides in front and back of finger holes
c) A ball drilled without a thumbhole may not have more than three quarters (3/4) ounce ( 21 g) difference between any two halves of the ball
d) A ball drilled without any finger holes or indentations may not have more than three quarters (3/4) ounce ( 21 g ) difference between any two halves of the ball
e) A ball used without any hole or indentations may not have more than three quarters (3/4) ounce $(21 \mathrm{~g})$ difference between any two halves of the ball.

### 11.14 Specifications that may be measured at tournament sites

11.14.1 Gross weight. Shall not exceed 16 pounds ( 7.25 kg ).
11.14.2 Holes or indentations for gripping purposes. Shall not exceed five.
11.14.3 One hole for balance purposes is allowed. Shall not exceed $11 / 4$ in $(31.8 \mathrm{~mm})$ diameter.
11.14.4 Vent holes to the finger and/or thumb holes are allowed. Shall not exceed $1 /{ }^{1 / 2}$ in $(6.4 \mathrm{~mm})$ diameter.

