



## SOP-BALL-12 Bowling Ball Approval

**Purpose:** To approve a bowling ball for use in USBC certified competition.

**Materials:**

- Two bowling balls of the same model submitted for approval testing.
  - One sample should weigh between 15.00 lbs. and 15.40 Lbs.
  - One sample of either a 14 lb. or 16 lb. model, whichever weight is designed with the greater differential RG.
- Completed copy of the Ball Application Sheet for the ball model being tested.
- “USBC Ball Check-In List.xls” Excel file
- Paper sticker labels
- Permanent marker
- Digital camera with USB connection cable
- Photo booth
- SOP-BALL-4 (Total Weight)
- SOP-BALL-3 (Top Weight)
- SOP-BALL-7 (Diameter)
- SOP-BALL-6 (Roundness)
- SOP-BALL-5 (Hardness)
- SOP-BALL-1 (Asymmetrical RG) or SOP-BALL-2 (Symmetrical RG)
- SOP-BALL-11 (Mohs’ Hardness)
- SOP-BALL-18 (Surface Preparation)
- SOP-BALL-10 (Surface Roughness)
- SOP-BALL-9 (Kinetic CoF)
- SOP-BALL-17 (Oil Absorption)

**Procedure:**

1. Weigh Bowling Balls
  - a. Follow the first procedure listed in the Materials section (SOP-BALL-4).
  - b. Once the sample is measured for total weight, place a paper sticker label on the bowling ball box and using the permanent marker write the date the test samples were received, and write the total weight of the individual bowling ball on the label.
  - c. Repeat process for each sample ball to be checked in.
2. Check-in bowling ball test samples
  - a. Open the “USBC Ball Check-In List.xls” Excel file.
  - b. The “Ball Input Form” will appear. Enter the following information into the appropriate fields in the form:
    - i. **Date** the test sample bowling balls were received.
    - ii. **Manufacturer** of the test samples



- iii. **Brand** of the test samples
  - iv. Model of the test samples under **Ball Name**
    - v. If the ball has a **previously approved core**, click on the check box.
    - vi. **Serial Numbers** of each test sample (Lighter weight sample on the left)
    - vii. **Weight** of each test sample (Lighter weight sample on the left)
    - viii. Color of the pin of the test samples under **Pin Color**
    - ix. **Shell Type** – the following are acceptable to be entered as the shell type (reference the Ball Approval Application Worksheet that was submitted for the test samples to aid in logging the shell type):
      1. Solid Reactive
      2. Pearl Reactive
      3. Hybrid Reactive
      4. Solid Particle
      5. Pearl Particle
      6. Hybrid Particle
      7. Solid Urethane
      8. Pearl Urethane
      9. Hybrid Urethane
      10. Polyester
      11. Clear Polyester
    - x. Color(s) of the test samples under **Ball Color(s)** (if shell type is a hybrid, indicate which colors are pearl)
  - c. Select “Add Ball”.
  - d. Select “Generate Test Sheets”.
  - e. Close the “Ball Input Form”.
  - f. Save the “USBC Ball Check-In List” Excel file.
  - g. Close the “USBC Ball Check-In List” Excel file.
  - h. Select “Ball Testing Template 3-4-13.xlsm” Excel file created from step 1-d.
  - i. Select File>Save As and navigate to the ball approval directory.
  - j. If necessary, create a new folder with the name of the ball model for the test samples. If the folder exists, enter (Ball Name) folder.
  - k. Use the following naming convention: “(Brand)(Model) Test Sheet” and save the test sheet.
3. Ball Approval Testing – Each measurement test must be conducted individually on both bowling ball test samples for that ball model.
- a. Open the test sheet for the ball model being tested.
  - b. By the order listed, follow the next 4 procedures found in the Materials section (SOP-BALL-3 through SOP-BALL-5).
  - c. Record the results of each test on the test sheet under the appropriate serial number and weight (left side of the test sheet is for the lighter weight sample).
  - d. Begin following SOP-BALL-1 for each of the sample test bowling balls.
  - e. If the test sample bowling and spins about a constant axis (PSA) in Step 6 of SOP-BALL-1 then continue to follow that procedure. If in Step 6 of SOP-BALL-



- 1, the test sample bowling ball does not settle on an axis and concentric circles are being drawn around a circumference of the bowling ball, discontinue use of SOP-BALL-1 and proceed to Step 7 of SOP-BALL-2.
  - f. If the shell type entered in step 1-b-vix is listed as a form of particle for the test samples or we deem it necessary, follow procedure SOP-BALL-11.
  - g. Record Pass, Fail or N/A of Mohs' hardness on the test sheet for the test sample.
  - h. By the order listed, follow the next 4 procedures found in the Materials section (SOP-BALL-18 through SOP-BALL-17).
  - i. Follow SOP-BALL-17 Oil Absorption
  - j. Record the test results in the ball test sheet.
  - k. Save the test sheet.
4. Photograph a test sample bowling ball.
    - a. Place the bowling ball in the white photo booth.
    - b. Take a picture of the bowling ball using the digital camera.
    - c. Connect the digital camera to a computer through a USB cable.
    - d. Import the picture of the bowling ball test sample from the camera to the following location: "Product Approvals\Bowling Balls\Ball Photos
    - e. Rename the photo with the Brand and Model of bowling ball.
  5. Place the bowling ball test samples into their designated boxes and move them to the bowling ball cage. Bowling balls are stored on the shelves by brand.
  6. Finalization
    - a. Export all ball model data into the Inventory/Archive
    - b. Generate PDF test sheets and a letter to the manufacturer and/or brand detailing the approval status of the ball.
    - c. Send Ball Application, PDF Test Sheets, and approval status letter to the company that submitted the product for approval.
    - d. Generate and send a billing request for the ball model to USBC finance department.
    - e. Update the appropriate ball list on bowl.com – See DOC-SPECS-2.