



Snyder Industries, Inc.

U.N. Marked Container Closure Notification

The following is the closure specification utilized by Snyder Industries, Inc. (SII) in sealing closures of U. N. marked Non-bulk and Intermediate Bulk Containers (IBC). This specification is followed in the testing required for certification of U. N. marked containers and is to be followed in sealing SII Non-bulk and IBC's for shipment.

**Method:**

SII uses a two-pronged and sequential method in ensuring a proper seal at each closure. The first method utilizes the point in which the sealing feature (gasket or o-ring) fully and solidly contacts the sealing surface and an additional number of rotations or partial rotations based the thread specification of the closure. With the known thread pitch and gasket thickness, the distance for proper gasket compression can be accurately determined. This method ensures the proper gasket compression regardless of gasket material and eliminates variations in shrinkage of plastic parts, temperature of components, and thread condition.

The second method utilizes a minimum torque value. It is expected the closure is sealed using the first method alone, but as a level of redundancy to ensure the closure is sealed, a minimum torque value is utilized.

**Procedure:**

1. Thread the closure until full and solid gasket contact is achieved
2. Thread the closure the specified additional amount of rotation
3. If in rotating the closure the minimum torque value is not achieved, continue to thread the closure until the minimum torque value is achieved
4. If step 3 is required, do not tighten beyond 5ft-lbs beyond the minimum torque value

**Poly and Composite IBC's and Non-bulk Containers:**

CLOSURE	# OF ROTATIONS BEYOND FULL/SOLID GASKET CONTACT	MIN. TORQUE VALUE
<b>SII GEM CAP (6.5" CAP)</b> [includes all gaskets and versions of cap including retainer nut for pumps and macro-valve]	1/8-1/6	120 ft-lbs
<b>SII 6" HEAVY DUTY CAP AND 7" CAP</b> [includes all gaskets and version of caps]	1/8-1/6	75 ft-lbs
<b>2" NPS (NPT) THREADED CLOSURE</b> [includes all gaskets and NPS (NPT) plugs, manual or automatic pressure/vacuum vents, and drum/macro valves]	3/8-1/2	20 ft-lbs
<b>2" BUTTRESS THREADED CLOSURE</b> [includes all gaskets and Rieke buttress or Entegris buttress threaded plugs, draw tubes, dry breaks, drum valves, and macro-valve]	1/8-3/16	25 ft-lbs
<b>3/4" NPS/ NPT THREADED BUNG PLUG</b> [includes all gaskets]	3/8-5/8	10 ft-lbs
<b>20" ROTO-MOLDED CAP</b> [includes all gaskets]	Rotate until thread on lid completely engages thread on tank	NA
<b>17" ROTO-MOLDED PLUG CAP AND 12" CAP</b> – 17" plug cap is only utilized as a cover and the 12" cap is intended for use with solids therefore neither require a liquid tight seal	1/8-1/6	NA
<b>SII 2" REPLACEABLE BUNGS</b> – SII considers the removal and replacement of this part a repair and therefore is subject to the testing, inspection and marking requirements of §180.352. Reference <i>SII Replaceable Bung Procedure</i> for instructions.	NA	NA

**Metal IBC's:**

CLOSURE	# OF ROTATIONS BEYOND FULL/SOLID GASKET CONTACT	MIN. TORQUE VALUE
<b>2" AND 3" THREADED FITTINGS WITH NON-TEFLON GASKETS</b>	3/8-1/2	30 ft-lbs
<b>2" AND 3" THREADED FITTING WITH TEFLON GASKETS</b>	1/8-3/16	60 ft-lbs
<b>22" DRUM LIDS WITH CLAMP RING</b> - Seat the ring by striking it around the circumference with a mallet. Tighten the bolt and then restrike the ring with the mallet. Alternate between tightening and striking until the bolt tightening resistance does not change.	Not applicable	40 ft-lbs