



MANAGEMENT SYSTEM **CERTIFICATE**

Certificate no.: 259788-2018-AQ-IND-NA-PS

Initial certification date: 12 April 2018

Valid: 27 April 2022–23 February 2024

This is to certify that the management system of **Tarsons Products Limited** 902, Martin Burn Business Park, BP-3, Sector-V, Salt Lake, Kolkata - 700091, West Bengal, India

and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Quality Management System standard: ISO 13485:2016

This certificate is valid for the following scope:

Design, Development, Manufacturing, Marketing, Sales and Distribution of Sterile and Non-Sterile Plastic Labwares for Clinical and Medical use.

Place and date: Høvik, 27 April 2022



For the issuing office: DNV Product Assurance AS Veritasveien 3, 1363 Høvik, Norway



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DNV Conflicte no. 255783-2016-AC-NOAN-PG

Appendix to Certificate

Bottles and Carboys

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Trust our Bottles & Carboys

with your precious samples

Poor quality Bottles & Carboys destroy your sample with leachable contaminants.

Tarsons range of Bottles & Carboys are made with the purest grade of resins, making us #1 Trusted Brand that scientists around the world prefer.

Choose from a wide range of quality containers you can trust, for all of your application requirements.



Top reasons why Tarsons is reliable

- Wide range of products to select from
- 2. Matches Regulatory Standards
- 3. Meets ISO 13485:2016 & ISO 9001:2015
- 4. Versatile use both laboratories& production
- 5. High quality resins
- 6. Shatterproof construction
- 7. Leakproof Guarantee
- 8. Economical choice
- 9. No leachability
- 10. Technical Assistance provided

_The Tarsons

Factor

Leakproof Guarantee

Tarsons bottles and closures are designed with a strong and semi-buttress thread design. We offer a leakproof guarantee as we manufacture and test both components routinely as part of our quality inspection process. Tarsons closures come with no liner that wears or corrodes, or causes contamination.

High Quality Resin

The Tarsons range of bottles & carboys are made from the highest quality resin that meet medical grade standards. Our resins are selected to minimize additives and reduce potential leachables.

We don't use plasticizers or fillers, thus creating a safe storage space for your valuable samples.

Shatter-proof Safe

Plastics contain lower concentrations of trace elements extractables than glass and are less likely to break. Tarsons containers amplify this advantage, creating rugged containers that assure you the protection you expect for your valuable work.





Bottles and Carboys

Wide range Selection

Tarsons containers are made from a wide variety of plastic types to meet virtually any laboratory application. Choices include chemically-resistant LDPE, HDPE and autoclavable PP offerings.

Quality Reassured

Tarsons Bottles & Carboys are manufactured in registered ISO manufacturing facilities. We use injection blow-molding process in the manufacture of many of our products that results in more uniform wall thickness and durability. Leakproof-testing is also performed in each and every manufacturing lot.

Standards compliant

Our resins are USP Class VI certified, and are highly resistant. Tarsons containers are reusable and durable, making us a popular choice amongst global customers.



Round Bottle & Carboys

| Bottle NM 582070 4.3 PP Natural 13 8.3 15.8 38.6 | Nominal Capacity | Description | Catalog Number | Approx. Brim Capacity ml | Material | Colour | Screw Closure | I.D. Neck mm | O.D. Bottle mm | Approx. Hgt without Closure mm |
|--|---------------------|-------------|-------------------|-----------------------------|----------|---------|------------------|-----------------|-------------------|--------------------------------------|
| Bottle NM | | Bottle NM | 582070 | 4.3 | PP | Natural | 13 | 8.3 | 15.8 | |
| Bottle NM | 4 ml | Bottle NM | 583170 | 4.3 | HDPE | Natural | 13 | 8.3 | 15.8 | 38.6 |
| Bottle NM | | Bottle NM | 581170 | 4.3 | HDPE | Amber | 13 | 8.3 | 15.8 | 38.6 |
| Bottle NM | | | | | | | | | | |
| Bottle NM | | Bottle NM | 582080 | 11.1 | PP | Natural | 20 | 13.4 | 25 | 42.3 |
| Bottle NM | 8 ml | Bottle NM | 586080 | 11.1 | LDPE | Natural | 20 | 13.4 | 24.7 | 42.3 |
| Bottle NM | 0 | Bottle NM | 583180 | 11.1 | HDPE | Natural | 20 | 13.2 | 25 | 42.3 |
| Bottle NM | | Bottle NM | 581180 | 11.1 | HDPE | Amber | 20 | 13.2 | 25 | 42.3 |
| Bottle NM | | | | | | | | | | |
| Bottle NM | | Bottle NM | 582090 | 16.8 | PP | Natural | 20 | 13.5 | 25 | 56 |
| Bottle NM | 15 ml | Bottle NM | 586090 | 16.8 | LDPE | Natural | 20 | 13.3 | 24.8 | 56 |
| Bottle NM 582100 35 PP Natural 20 13.8 36.5 60 Bottle NM 583100 35 HDPE Natural 20 13.8 36.4 60 Bottle NM 583100 35 HDPE Natural 20 13.5 36.3 59.5 Bottle NM 581200 35 HDPE Natural 20 13.5 36.3 59.5 Bottle NM 581200 34.6 PP Natural 28 21.4 34.8 59.8 Bottle VM 582200 34.6 PP Natural 28 21.4 34.8 59.8 Bottle VM 582200 34.6 HDPE Natural 28 21.5 34.7 59.8 Bottle VM 582200 34.6 HDPE Natural 28 21 34.6 59.1 Bottle VM 582200 34.6 HDPE Natural 28 21 34.6 59.1 Bottle VM 582200 4.3 PP Natural 38 21 34.6 59.1 Bottle VM 582200 4.3 PP Natural 38 21 34.6 59.1 Bottle VM 582200 4.3 PP Natural 38 8.3 15.8 36.6 Bottle VM 582210 65 HDPE Natural 20 13.8 39.9 82 Bottle NM 583110 65 HDPE Natural 20 13.5 39.8 82 Bottle NM 583110 65 HDPE Natural 20 13.5 39.8 82 Bottle VM 582210 67 PP Natural 20 13.5 39.8 82 Bottle VM 582210 67 PP Natural 28 21.3 39.7 82.5 Bottle VM 582210 67 HDPE Natural 28 21.3 39.5 82.4 Bottle VM 582210 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582210 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582310 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582310 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582310 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582310 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582310 67 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 582310 138 HDPE Natural 28 21.1 39.2 81.5 Bottle VM 58230 138 HDPE Natural 24 17.7 51.5 98.4 Bottle VM 58220 139 PP Natural 38 28.6 50.6 95.5 Bottle VM 58220 139 HDPE Natural 38 28.6 50.6 95.5 Bottle VM 58220 139 HDPE Natural 38 28.7 50.5 95.5 Bottle VM 58220 139 HDPE Natural 38 28.7 50.5 95.5 Bottle VM 58220 139 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 139 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 290 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 290 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 290 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 290 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 290 HDPE Natural 38 28.3 50.3 94.7 Bottle VM 58220 290 HDPE Natural 43 33.1 61.6 12.7 A Bottle VM 58220 290 HDPE Natural 43 33.1 61.6 12.7 A Bottle VM 58220 290 HDPE Na | | Bottle NM | 583190 | 16.8 | HDPE | Natural | 20 | 13.2 | 24.7 | 55.5 |
| Bottle NM | | Bottle NM | 581190 | 16.8 | HDPE | Amber | 20 | 13.2 | 24.7 | 55.5 |
| Bottle NM | | | | | | | | | | |
| Bottle NM | | | | | | | | | | |
| Bottle WM 582200 34.6 PP Natural 28 21.4 34.8 59.8 | | | | | | | | | | |
| Bottle WM | | Bottle NM | 581200 | 35 | HDPE | Amber | 20 | 13.5 | 36.3 | 59.5 |
| Bottle WM | 30 ml | Bottle WM | 582200 | 34.6 | PP | Natural | 28 | 21.4 | 34.8 | 59.8 |
| Bottle NM | | Bottle WM | 585200 | 34.6 | LDPE | Natural | 28 | 21.5 | 34.7 | 59.8 |
| Bottle NM | | Bottle WM | 584200 | 34.6 | HDPE | Natural | 28 | 21 | 34.6 | 59.1 |
| Bottle NM | | | | | | | | | | |
| Bottle NM 581210 65 HDPE Natural 20 13.5 39.8 82 | | Bottle NM | 362070 | 4.5 | rr | Naturai | 15 | 0.5 | 13.0 | 30.0 |
| Bottle NM 581210 65 HDPE Natural 20 13.5 39.8 82 | | Bottle NM | 586210 | 65 | I DPF | Natural | 20 | 13.8 | 39.9 | 82 |
| Bottle NM | | | | | | | | | | |
| Bottle WM 582210 67 PP Natural 28 21.3 39.7 82.5 | | | | | | | | | | |
| Bottle WM 585210 67 LDPE Natural 28 21.3 39.5 82.4 | | | | | | | | | | |
| Bottle WM | 60 ml | | | | | | | | | |
| Bottle WM | | | | | | | | | | |
| Bottle NM | | | | | | | | | | |
| Bottle NM | - | | | | | | | | | |
| Bottle NM | | | | | | | | | | |
| Bottle NM | | Bottle NM | 586220 | 138 | LDPE | Natural | 24 | 17.7 | 51.5 | 98.4 |
| Bottle WM | | Bottle NM | | 138 | | Natural | | 17.7 | | 98.2 |
| Bottle WM | | Bottle NM | 581220 | 138 | HDPE | Amber | 24 | 17.7 | 51 | 98.2 |
| Bottle WM 584220 139 HDPE Natural 38 28.3 50.3 94.7 Bottle WM 581320 139 HDPE Amber 38 28.3 50.3 94.7 Bottle NM 582070 4.3 PP Natural 13 8.3 15.8 36.6 Bottle NM 586230 290 LDPE Natural 24 17.6 61.1 130.7 Bottle NM 583130 290 HDPE Natural 24 17.5 60.8 130.9 Bottle NM 581230 290 HDPE Amber 24 17.5 60.8 130.9 Bottle WM 582230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle WM | 582220 | 139 | PP | Natural | 38 | 28.6 | 50.6 | 95.5 |
| Bottle WM 581320 139 HDPE Amber 38 28.3 50.3 94.7 Bottle NM 582070 4.3 PP Natural 13 8.3 15.8 36.6 Bottle NM 586230 290 LDPE Natural 24 17.6 61.1 130.7 Bottle NM 583130 290 HDPE Natural 24 17.5 60.8 130.9 Bottle NM 581230 290 HDPE Amber 24 17.5 60.8 130.9 Bottle WM 582230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | 125 ml | Bottle WM | 585220 | 139 | LDPE | Natural | 38 | 28.7 | 50.5 | 95.5 |
| Bottle NM 582070 4.3 PP Natural 13 8.3 15.8 36.6 Bottle NM 586230 290 LDPE Natural 24 17.6 61.1 130.7 | | Bottle WM | 584220 | 139 | HDPE | Natural | 38 | 28.3 | 50.3 | 94.7 |
| Bottle NM 586230 290 LDPE Natural 24 17.6 61.1 130.7 Bottle NM 583130 290 HDPE Natural 24 17.5 60.8 130.9 Bottle NM 581230 290 HDPE Amber 24 17.5 60.8 130.9 Bottle WM 58230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle WM | 581320 | 139 | HDPE | Amber | 38 | 28.3 | 50.3 | 94.7 |
| Bottle NM 583130 290 HDPE Natural 24 17.5 60.8 130.9 Bottle NM 581230 290 HDPE Amber 24 17.5 60.8 130.9 Bottle WM 582230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle NM | 582070 | 4.3 | PP | Natural | 13 | 8.3 | 15.8 | 36.6 |
| Bottle NM 583130 290 HDPE Natural 24 17.5 60.8 130.9 Bottle NM 581230 290 HDPE Amber 24 17.5 60.8 130.9 Bottle WM 582230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | | | | | | | | | |
| Bottle NM 581230 290 HDPE Amber 24 17.5 60.8 130.9 Bottle WM 582230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle NM | 586230 | 290 | LDPE | Natural | 24 | 17.6 | 61.1 | 130.7 |
| 250 ml Bottle WM 582230 295 PP Natural 43 33 61.6 127.4 Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle NM | 583130 | 290 | HDPE | Natural | 24 | 17.5 | 60.8 | 130.9 |
| 250 ml Bottle WM 585230 295 LDPE Natural 43 33.1 61.2 127.7 Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle NM | 581230 | 290 | HDPE | Amber | 24 | 17.5 | 60.8 | 130.9 |
| Bottle WM 584230 295 HDPE Natural 43 32.8 60.9 127 | | Bottle WM | 582230 | 295 | PP | Natural | 43 | 33 | 61.6 | 127.4 |
| | 250 ml | Bottle WM | 585230 | 295 | LDPE | Natural | 43 | 33.1 | 61.2 | 127.7 |
| Bottle WM 581330 295 HDPE Amber 43 32.8 60.9 127 | | Bottle WM | 584230 | 295 | HDPE | Natural | 43 | 32.8 | 60.9 | 127 |
| | | Bottle WM | 581330 | 295 | HDPE | Amber | 43 | 32.8 | 60.9 | 127 |
| | | | | | | | | | | |

| Nominal Capacity | Description | Catalog Number | Approx. Brim Capacity ml | Material | Colour | Screw Closure | I.D. Neck mm | O.D. Bottle mm | Approx. Hgt without Closure mm |
|---------------------|---|-------------------|-----------------------------|------------|--------------------|------------------|-----------------|-------------------|--------------------------------------|
| | Bottle NM | 582140 | 540 | PP | Natural | 28 | 21.2 | 73.5 | 168 |
| | Bottle NM | 586240 | 540 | LDPE | Natural | 28 | 21.2 | 72.8 | 168 |
| | Bottle NM | 583140 | 540 | HDPE | Natural | 28 | 21.1 | 73 | 168 |
| 500 1 | Bottle NM | 581240 | 540 | HDPE | Amber | 28 | 21.1 | 73 | 168 |
| 500 ml | Bottle NM | 582141 | 577 | PP PP | Natural | 38 53 | 28.2 | 75.2 | 180 |
| | Bottle WM Bottle WM | 582240 585240 | 585 568 | LDPE | Natural Natural | 53 | 43.8 | 73.1 72.8 | 164 164 |
| | Bottle WM | 584240 | 568 | HDPE | Natural | 53 | 43.9 | 72.7 | 164 |
| | Bottle WM | 581340 | 568 | HDPE | Amber | 53 | 44 | 72.7 | 164 |
| | Dottie IIII | 55.5.0 | | | 711110-01 | | | ,, | |
| | Bottle NM | 582150 | 1100 | PP | Natural | 38 | 27.8 | 93.9 | 214 |
| | Bottle NM | 586250 | 1100 | LDPE | Natural | 38 | 27.8 | 93.1 | 214 |
| | Bottle NM | 583150 | 1100 | HDPE | Natural | 38 | 27.8 | 93.1 | 214 |
| 1 litre | Bottle NM | 581250 | 1100 | HDPE | Amber | 38 | 27.8 | 93.1 | 214 |
| , incre | Bottle WM | 582250 | 1120 | PP | Natural | 63 | 53.3 | 92.7 | 195 |
| | Bottle WM | 585250 | 1120 | LDPE | Natural | 63 | 52.2 | 92 | 195 |
| | Bottle WM | 584250 | 1120 | HDPE | Natural | 63 | 51.9 | 92 | 195 |
| | Bottle WM | 581350 | 1120 | HDPE | Amber | 63 | 51.9 | 92 | 195 |
| | Bottle NM | 582180 | 2082 | PP | Natural | 38 | 26.9 | 120 | 247 |
| | Bottle NM | 586260 | 2082 | LDPE | Natural | 38 | 26.9 | 119 | 247 |
| | Bottle WM | 582260 | 2260 | PP | Natural | 100 | 90.5 | 119.5 | 236 |
|) litur - | Bottle NM | 585260 | 2260 | LDPE | Natural | 100 | 90.2 | 119.2 | 236 |
| 2 litres | Bottle WM | 584260 | 2260 | HDPE | Natural | 100 | 90.8 | 119 | 236 |
| | Bottle WM | 581360 | 2260 | HDPE | Amber | 100 | 90.8 | 199 | 236 |
| | Heavy Duty Vacuum Bottle | 583225 | 2250 | PP | Natural | 53 | 38.4 | 118.75 | 258 |
| | | | | | | | | | |
| | Bottle NM | 582160 | 4360 | PP | Natural | 38 | 27 | 153 | 330 |
| | Bottle NM | 582170 | 4360 | PP | Amber | 38 | 27 | 153 | 330 |
| 4 150 | Bottle NM | 586280 | 4360 | LDPE | Natural | 38 | 27 | 153 | 408 |
| 4 litres | Bottle WM with handle | 583257 | 4500 | PP | Natural | 100 | 86.7 | 163 | 293 |
| | Bottle NM with handle | 583357 | 4500 | HDPE | Natural | 100 | 86.7 | 163 | 293 |
| | Heavy Duty Vacuum Bottle | 582255 | 4100 | PP | Natural | 83 | 65 | 154 | 336 |
| 5 litres | Aspirator Bottle w/Stopcock | 583210 | 5400 | PP | Natural | 53 | 43.8 | 168 | 345 |
| 3 lities | Aspirator Bottle W/Stopcock | 303210 | 3400 | - '' | Matural | | 75.0 | 100 | 343 |
| 8 litres | Bottle NM | 582190 | 8500 | PP | Natural | 53 | 39.1 | 195 | 408 |
| onties | Bottle NM | 586290 | 8500 | LDPE | Natural | 53 | 39.1 | 195 | 408 |
| | | | | | | | | | |
| | Carboy NM | 583250 | 11500 | PP | Natural | 83 | 65 | 249 | 376 |
| | Carboy NM | 583252 | 11840 | HDPE | Amber | 83 | 65 | 249 | 376 |
| | Carboy NM | 583371 | 11840 | LDPE | Natural | 83 | 65 | 249 | 376 |
| | Carboy Wide Mouth | 583351 | 11600 | PP | Natural | 100 | 85.6 | 249 | 331 |
| | Carboy Wide Mouth | 583471 | 11600 | LDPE | Natural | 100 | 85.6 | 249 | 331 |
| 10 litres | Carboy with Stopcock | 583280 | 11460 | PP | Natural | 83 | 65 | 249 | 376 |
| | Carboy with Stopcock Carboy with Tubulation | 584380 585380 | 11460 11460 | LDPE PP | Natural Natural | 83 | 65 65 | 249 249 | 376 376 |
| | Carboy with Tubulation | 586380 | 11460 | LDPE | Natural | 83 | 65 | 249 | 376 |
| | Aspirator Bottle w/Stopcock | 583220 | 10500 | PP | Natural | 53 | 43.5 | 200 | 453 |
| | , | - | | | | | | | |
| | Carboy NM | 583260 | 22000 | PP | Natural | 83 | 65 | 285 | 518 |
| | Carboy NM | 583372 | 22000 | LDPE | Natural | 83 | 65 | 285 | 518 |
| | Carboy Wide Mouth | 583361 | 22000 | PP | Natural | 100 | 85.6 | 285 | 472 |
| | Carboy Wide Mouth | 583472 | 22000 | LDPE | Natural | 100 | 85.6 | 285 | 472 |
| 20 litres | Carboy with Stopcock | 583290 | 21500 | PP | Natural | 83 | 65 | 285 | 518 |
| | Carboy with Stopcock | 584390 | 21500 | LDPE | Natural | 83 | 65 | 285 | 518 |
| | Carboy with Tubulation | 585390 | 21500 | PP | Natural | 83 | 65 | 285 | 518 |
| | Carboy with Tubulation | 586390 | 21500 | LDPE | Natural | 83 | 65 | 285 | 518 |
| | Aspirator Bottle w/Stopcock | 583230 | 22700 | PP | Natural | 53 | 43.8 | 265 | 533 |
| | C- 1 NA | F02275 | F 44.55 | 20 | NI - | 0.2 | | 274 | |
| | Carboy NM | 583270 | 54120 | PP | Natural | 83 | 65 | 376 | 665 |
| 50 litres | Carboy NM Carboy with Stopcock | 583373 583300 | 54120 54360 | LDPE PP | Natural Natural | 83 | 65 65 | 376 376 | 665 665 |
| | Carboy with Stopcock | 583300 | 54360 | LDPE | Natural | 83 | 65 | 376 | 665 |
| | Carboy With Stopcock | 304400 | 34300 | LUIL | Naturai | 0.5 | 03 | 370 | 005 |

Square Bottle & Carboys

| Nominal Capacity | Description | Catalog Number | Approx. Brim Capacity ml | Material | Colour | Screw Closure mm | Approx. I.D. Neck mm | Approx. Bottle O.D. (L X W) mm | Approx. Hgt without Closure mm |
|---------------------|-----------------------------------|-------------------|-----------------------------|------------|---------------------------------------|---------------------|----------------------------|--------------------------------------|--------------------------------------|
| 125 ml | Rectangular Bottle | 583320 | 139.6 | HDPE | Natural | 28 | 21.1 | 60 X 39.4 | 97.3 |
| 123 1111 | Rectangular Bottle | 583420 | 139.6 | HDPE | Amber | 28 | 21.1 | 60 X 39.4 | 97.3 |
| | | | | | | | | | |
| 250 ml | Rectangular Bottle | 583330 | 290 | HDPE | Natural | 38 | 28.8 | 75.5 X 54 | 112 |
| 230 1111 | Rectangular Bottle | 583430 | 290 | HDPE | Amber | 38 | 28.8 | 75.5 X 54 | 112 |
| | | | | | | | | | |
| 500 ml | Rectangular Bottle | 583340 | 645 | HDPE | Natural | 48 | 38 | 100 X 64.7 | 140.6 |
| 300 1111 | Rectangular Bottle | 583440 | 645 | HDPE | Amber | 48 | 38 | 100 X 64.7 | 140.6 |
| | | | | | | | | | |
| 1 Litre | Rectangular Bottle | 583350 | 1140 | HDPE | Natural | 53 | 43.7 | 125.2 X 70.2 | 175 |
| | Rectangular Bottle | 583450 | 1140 | HDPE | Amber | 53 | 43.7 | 125.2 X 70.2 | 175 |
| | | | | | | | | | |
| 2 Litres | Rectangular Bottle + Handle | 583360 | 2380 | HDPE | Natural | 63 | 52.3 | 150 X 97 | 240 |
| 2 2.0.03 | Rectangular Bottle + Handle | 583460 | 2380 | HDPE | Amber | 63 | 52.3 | 150 X 97 | 240 |
| | Square bottle With Hamare | 303230 | +550 | | Naturai | 100 | 00.1 | 177.2 N 177.2 | 233 |
| 4 Litres | Square Bottle with Handle | 583358 | 4590 | HDPE | Natural | 100 | 86.7 | 147.2 X 147.2 | 293 |
| | Rottle NM | 581200 | 35 | HDPF | Amher | 20 | 13.5 | 36.3 | 59 5 |
| | nectungular cursoy i stopeoch | 000E 10 | | | · · · · · · · · · · · · · · · · · · · | | 00.5 | | |
| | Rectangular Carboy+Stopcock | 683241 | 6690 | HDPE- | Natural | 100 | 86.3 | 229 X 144 | 330 |
| 5 Litres | Jerrican | 683210 | 8110 | HDPE | Natural | 53 | 38.9 | 253 X 170 | 329 |
| | Rottle W/M | 581300 | 34.6 | HUDE | Amber | 28 | 21 | 34.6 | 50 1 |
| Olituos | Datala NIAA | 502110 | 65 | PP | Natural | 20 | 12.0 | 40.2 | 02.6 |
| 8 Litres | Bottle NM | 582110 | 65 | PP | Natural | 20 | 13.8 | 40.2 | 82.6 |
| | Do ston sullay Carbout Ston so sk | 602242 | 11800 | HDPE | Natural | 100 | 87.3 | 284 X 176 | 300 |
| 10 Litres | Rectangular Carboy+Stopcock | 683242 | | | Natural | 100 | | | 389 |
| 10 Littes | Jerrican Bottle WM | 683220 582210 | 11580 67 | HDPE PP | Natural | 53 28 | 38.9 | 282 X 189 39.7 | 374 |
| | BOTTIE MINI | 382210 | 0/ | PP | Natural | 28 | 21.3 | 39./ | 82.5 |
| | Rectangular Carboy+Stopcock | 683243 | 20560 | HDPE | Natural | 100 | 86.3 | 340 X 209 | 486 |
| 20 Litres | Jerrican | 683230 | 24190 | HDPE | Natural | 53 | 38.9 | 351 X 245 | 463 |
| 20 2.0.03 | 30 | 500200 | 250 | | , racarai | - 50 | 30.2 | 33.7.2.3 | |

Resin Quick Reference Chart High Density Polypropylene (HDPE) Polypropylene (PP) Polypropylene Copolymer (PPCO) Low Density Polypropylene (LDPE) High 121°C 80°C 120°C Temparature 135°C 0°C - 40°C -100°C -100°C Temparature Autoclavable Ν Ν Microwavable Marginal Dry Heat (Oven) Ν Ν Ν Ν Freeze Ν Excellent Flexibility Rigid Moderate Rigid Clarity Translucent Translucent Translucent Translucent Recycling Symbol

Autoclaving Conditions



CAUTION

Before autoclaving set the closure on top of the container without engaging the threads. During decompression phase of the autoclaving cycle, the pressure within the vessel must be allowed to equalize. Any material stacked or placed over the closure has a potential to cause a vacuum to form, resulting in collapse.

Physical Properties of Tarsons Labware

| | Max | Brittleness | | | | Sterilization | on | | Specific | Flexibility | Water |
|-------|----------------|---------------------|--------------|------------------|-----|---------------|---------------|-------------------|----------|-------------|--------------|
| Resin | Use Temp ⁰C | Temp ⁰ C | Transparency | Auto- claving | Gas | Dry Heat | Radia tion | Disin- fectant | Gravity | | Absorption % |
| HDPE | 120 | -100 | Translucent | No | Yes | No | Yes | Yes | 0.95 | Rigid | <0.01 |
| LDPE | 80 | -100 | Translucent | No | Yes | No | Yes | Yes | 0.92 | Excel | <0.01 |
| PC | 135 | -135 | Clear | Yes + | Yes | No | No | Yes | 1.20 | Rigid | 0.35 |
| PMMA | 50 | 20 | Clear | No | Yes | No | Yes | Some | 1.20 | Rigid | 0.30 |
| PP | 135 | 0 | Translucent | Yes | Yes | No | No | Yes | 0.90 | Rigid | <0.02 |
| PS | 90 | 20 | Clear | No | Yes | No | Ye | Some | 1.05 | Rigid | 0.05 |
| PSF | 165 | -10 | Clear | Yes | Yes | Yes + | Yes | Yes | 1.24 | Rigid | 0.30 |
| PTFE | 270 | -200 | Opaque | Yes | Yes | Yes | No | Yes | 2.17 | Excel | <0.01 |
| PVDF | 110 | -62 | Translucent | Yes | Yes | No | No | Yes | 1.75 | Rigid | 0.05 |
| TPX* | 175 | 20 | Clear | Yes | Yes | Yes + | No | Yes | 0.83 | Rigid | <0.01 |

Sterilization

- Autoclaving (121ºC, 15 psig for 20 minutes) Clean and rinse item with distilled water before autoclaving. Certain Chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclaving temperatures.
 ALWAYS COMPLETELY DISENGAGE THREADS BEFORE AUTOCLAVING.
- Gas Ethylene oxide, formaldehyde.
- Dry heat 160°C for 120 minutes
- Disinfectant Benzalkonium chloride, Formalin, Ethanol, etc.
- Radiation gamma irradiated at 2.5 Mrad with unstabilized plastic.
- + Sterilizing reduces mechanical strength. Do not use PC vessels for vacuum application if they have been autoclaved.

Chemical Resistance for Tarsons Labware

| Classes of Substances at Room Temperature | HDPE | LDPE | PC | PMMA | РР | PS | PSF | PTFE | PVDF | TPX* |
|--|------|------|----|------|----|----|-----|------|------|------|
| Acids, Dilute or Weak | Е | Е | Е | G | Е | Е | Е | Е | Е | Е |
| Acids, Strong and Concentrated | Е | Е | N | N | Е | F | G | Е | Е | Е |
| Alcohols, Aliphatic | Е | Е | G | N | Е | Е | G | Е | Е | Е |
| Aldehydes | G | G | F | G | G | N | F | Е | Е | G |
| Bases | Е | Е | N | F | Е | Е | Е | Е | Е | Е |
| Esters | G | G | N | N | G | N | N | Е | G | G |
| Hydrocarbons, Aliphatic | G | F | F | G | G | N | G | Е | Е | F |
| Hydrocarbons, Aromatic | G | F | N | N | F | N | N | Е | Е | F |
| Hydrocarbons, Halogenated | F | N | Ν | N | F | Z | Ν | Ш | Ν | N |
| Ketones | G | G | N | N | G | Ν | N | Ш | N | F |
| Oxidizing Agents, Strong | F | F | N | N | F | N | G | Е | G | F |

Chemical Resistance Classification

E = Excellent - 30 days of constant exposure cause no damage. Plastics may even tolerate for years.

G = Good - Little or no damage after 30 days of constant exposure to the reagent.

F = Fair - Some effect after 7 days of constant exposure to the reagent like crazing, cracking, loss of strength or discoloration.

N = Not Recomended - Not for continuous use. Immediate damage may occur.



Resin Code

| HDPE | High-density polyethylene |
|------|---------------------------|
| LDPE | Low-density polyethylene |
| PC | Polycarbonate |
| PMMA | Polymethyl methacrylate |
| PP | Polypropylene |
| PS | Polystyrene |
| PSF | Polysulfone |
| PTFE | Polytetrafluoroethylene |
| PVDF | Polyvinylidene fluoride |
| TPX | Polymethylpentene |

TPX is the registered Trade Mark of Mitsui & Co. Ltd.

Discover reliable Bottles

The Tarsons range of Bottles are the classic standard storage containers. They offer the ultimate solution in containment and protection. Available in 3 different resins, they are ensured to be leakproof, strong and durable.

Uniform



Bottom

curved inner corners for superior cleaning

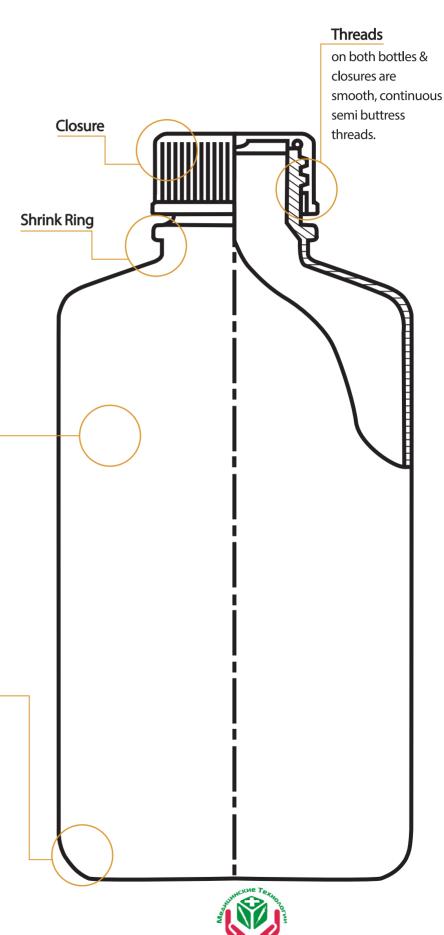
Symbol Glossary



USP Class VI certified medical grade resin



Products listed as Autoclavable can be autoclaved at 121°C, 15 psi for 20 minutes



www.medtehural.ru

Narrow Mouth Bottles

Narrow-Mouth Bottle - PP

Tarsons Narrow-Mouth Bottles are ideal for lab applications that require excellent chemical resistance. Autoclavable with and without contents

- Caps provide the ultimate leakproof protection
- Provides excellent chemical resistance for a variety of lab applications
- Translucence provides good clarity for viewing contents
- 2, 4 and 8 L Narrow-Mouth Bottles feature a built-in shoulder loop for attaching identification tag
- Autoclavable and Leakproof

| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 582070 | 4ml | 12/6 |
| 582080 | 8ml | 12/6 |
| 582090 | 15ml | 12/6 |
| 582100 | 30ml | 12/6 |
| 582110 | 60ml | 12/6 |
| 582120 | 125ml | 12/6 |
| 582130 | 250ml | 12/6 |
| 582140 | 500ml | 12/4 |
| 582150 | 1000ml | 6/4 |
| 582180 | 2 Litres | 1/6 |
| 582160 | 4 Litres | 1/6 |
| 582190 | 8 Litres | 1/6 |



| Narrow- | Mouth | Bottle - | I DPF |
|---------|-------|----------|-------|

Tarsons Narrow-Mouth Bottles are ideal for lab applications that require excellent chemical resistance. Medical grade confirming to USP Class VI

- Excellent chemical resistance to most acids, bases and alcohols make this a versatile bottle
- Can be used in freezer to -100°C (-148°F) for long-term storage
- Translucence allows easy viewing of liquid levels
- Caps provide the ultimate leakproof protection

| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 586080 | 8ml | 12/6 |
| 586090 | 15ml | 12/6 |
| 586200 | 30ml | 12/6 |
| 586210 | 60ml | 12/6 |
| 586220 | 125ml | 12/6 |
| 586230 | 250ml | 12/6 |
| 586240 | 500ml | 12 / 4 |
| 586250 | 1000ml | 6/4 |
| 586260 | 2 Litres | 1/6 |
| 586280 | 4 Litres | 1/6 |
| 586290 | 8 Litres | 1/6 |



Narrow-Mouth Bottle - HDPE

Tarsons Narrow Mouth Bottles are suitable for general purpose laboratory applications

- Caps ensure leakproof performance
- Reliable durability
- Can be used for packing and shipping purpose

| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 583170 | 4ml | 12/6 |
| 583180 | 8ml | 12/6 |
| 583190 | 15ml | 12/6 |
| 583100 | 30ml | 12/6 |
| 583110 | 60ml | 12/6 |
| 583120 | 125ml | 12/6 |
| 583130 | 250ml | 12/6 |
| 583140 | 500ml | 12 / 4 |
| 583150 | 1000ml | 6/4 |



Amber Narrow-Mouth Bottle - HDPE

Tarsons Amber Narrow Mouth Rectangular Bottles help protect light sensitive liquids or dry materials from exposure

- Amber HDPE reduces UV light transmissions to protect light sensitive liquids
- Excellent chemical resistance to most acids, bases and alcohols helps these containers protect your valuable samples
- Caps provide the ultimate in leakproof protection



| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 581170 | 4ml | 12/6 |
| 581180 | 8ml | 12/6 |
| 581190 | 15ml | 12/6 |
| 581200 | 30ml | 12/6 |
| 581210 | 60ml | 12/6 |
| 581220 | 125ml | 12/6 |
| 581230 | 250ml | 12/6 |
| 581240 | 500ml | 12 / 4 |
| 581250 | 1000ml | 6/4 |

Wide Mouth Bottles

| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 582200 | 30ml | 12/6 |
| 582210 | 60ml | 12/6 |
| 582220 | 125ml | 12/6 |
| 582230 | 250ml | 12/6 |
| 582240 | 500ml | 12 / 4 |
| 582250 | 1000ml | 6/4 |
| 583257 | 4 Litres | 1/6 |
| 583258 | 4 Litres | 1/6 |





Wide-Mouth Bottle - PP

Tarsons Wide-Mouth Economy Bottles are suitable for general purpose laboratory applications. Wide mouth is easy to fill

- Caps ensure leakproof performance
- Autoclavable
- Leakproof

| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 582200 | 30ml | 12/6 |
| 582210 | 60ml | 12/6 |
| 582220 | 125ml | 12/6 |
| 582230 | 250ml | 12/6 |
| 582240 | 500ml | 12 / 4 |
| 582250 | 1000ml | 6/4 |



Wide-Mouth Bottle - LDPE

Tarsons Wide-Mouth Bottles are suitable for general purpose laboratory applications. Wide mouth is easy to fill

- Caps ensure leakproof performance
- Leakproof

| Code | Capacity | Packaging Unit / Case |
|--------|-----------------|--------------------------|
| 584200 | 30ml | 12/6 |
| 584210 | 60ml | 12/6 |
| 584220 | 125ml | 12/6 |
| 584230 | 250ml | 12/6 |
| 584240 | 500ml | 12 / 4 |
| 584250 | 1000ml | 6/4 |
| 583257 | 4 Litres Round | 1/6 |
| 583258 | 4 Litres Square | 1/6 |



| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 581300 | 30ml | 12/6 |
| 581310 | 60ml | 12/6 |
| 581320 | 125ml | 12/6 |
| 581330 | 250ml | 12/6 |
| 581340 | 500ml | 12 / 4 |
| 581350 | 1000ml | 6/4 |



Wide-Mouth Bottle - HDPE

Tarsons Wide-Mouth Bottles are suitable for general purpose laboratory applications

- Caps ensure leakproof performance
- Reliable durability
- Can be used for packing and shipping purpose
- Leakproof

Amber Wide-Mouth Bottle - HDPE

Tarsons Amber Wide Mouth Rectangular Bottles help protect light sensitive liquids or dry materials from exposure

- Amber HDPE reduces UV light transmissions to protect light sensitive liquids
- Excellent chemical resistance to most acids, bases and alcohols help these containers protect your valuable samples
- Caps provide the ultimate leakproof protection



Heavy Duty Vacuum Bottle - PP

Tarsons Heavy Duty Vacuum Bottles are ideal for lab applications that require vacuum applications. Autoclavable with and without contents

- Thick walled Bottles can withstand repeated room temperature vacuum applications
- Use as a waste aspirator bottle or as autoclavable vessel

| 121℃ | |
|--------|--|
| 15 psi | |
| - de | |

| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 583255 | 2 Litres | 2/6 |
| 582255 | 4 Litres | 1/6 |

Rectangular Bottle - HDPE

Tarsons Rectangular Bottles are ideal for long term storage. They have a sturdy uniform wall construction and straight sides that resists punctures.

- Wide Mouth closure is guaranteed Leakproof
- Bottles ideal for repeated long term use



| Code | Capacity | Packaging Unit / Case |
|--------|----------|--------------------------|
| 583320 | 125ml | 12/6 |
| 583330 | 250ml | 12/6 |
| 583340 | 500ml | 12 / 4 |
| 583350 | 1000ml | 6/4 |
| 583360 | 2000ml | 4/3 |

Amber Rectangular Bottle - HDPE

Tarsons Amber Rectangular Bottles help protect light sensitive liquids or dry materials from exposure

- Amber bottles reduce UV light transmission to protect light sensitive liquids
- Excellent chemical resistance to most acids, bases and alcohols
- Leakproof



| Code | Capacity | Unit / Case |
|--------|----------|-------------|
| 583420 | 125ml | 12/6 |
| 583430 | 250ml | 12/6 |
| 583440 | 500ml | 12/4 |
| 583450 | 1000ml | 6/4 |
| 583460 | 2000ml | 4/3 |

Filling Venting Closure

Autoclavable closure for aseptic transfer of media, biological reagents, pure water to and from heavy duty vacuum bottles and carboys

- Available in 53mm and 83 mm size
- Can be used with Tarsons Heavy Duty Bottles and Carboys

| 121℃ | |
|--------|--|
| 15 psi | |

| Code | Description | Packaging Unit / Case |
|--------|------------------------------|--------------------------|
| 583216 | Filling Venting Closure 52mm | 1/1 |
| 583217 | Filling Venting Closure 82mm | 1/1 |

Experience Study Carboys

Seal Ring

is molded inside the closure. It fits tightly against the beveled inner edge of the the bottle neck

Closure

The closure is tested to work the carboy and jerrican threading. Ensures a guaranteed leakproof system

Threads

an bottle and closures have continuous straight-shoulder semi-buttress threads



in built shoulders for carrying ease

Symbol Glossary



USP Class VI certified medical grade resin



Products listed as Autoclavable can be autoclaved at 121°C, 15 psi for 20 minutes

Thread

carbys feature a stable base and bottom with curved inner corners for easy cleaning

HDPE

Carboy & Jerrican



Caps are leakproof PP

- Wide range including heavy-duty for extra-aggressive conditions, amber for light-sensitive products, and wide mouth design for easy filling and dispensing of liquids
- Round for homogeneous stirring
- Rectangular shape (jerrican) for efficient use of storage space

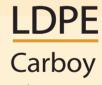
| Code | Capacity | Description | Packaging Unit / Case |
|--------|----------|--|--------------------------|
| 683210 | 5 lts | Jerrican with handle - HDPE | 1/6 |
| 683220 | 10 lts | Jerrican with handle - HDPE | 1/6 |
| 683230 | 20 lts | Jerrican with handle - HDPE | 1/6 |
| 583252 | 10 lts | Round Carboy with handle - Amber HDPE | 1/6 |
| 583253 | 20 lts | Round Carboy with handle - Amber HDPE | 1/4 |
| 684300 | 8 lts | Handyboy with spigot - HDPE | 1/4 |
| 683241 | 5 lts | Rectangular Carboy with spigot (handle) - HDPE | 1/6 |
| 683242 | 10 lts | Rectangular Carboy with spigot (handle) - HDPE | 1/6 |
| 683243 | 20 lts | Rectangular Carboy with spigot (handle) - HDPE | 1/6 |

Recommended Applications

Media formulation and mixing, aseptic protocols, aggressive conditions or chemicals, and production where products may adhere to and leach out of containers.

- Leakproof PP cap for guaranteed performance
- Convenient shoulder handles for easy carrying and pouring
- Graduations for volume determination at a glance
- Wide-mouth version for easy cleaning, filling and dispensing
- Round for homogeneity during stirring

| Code | Capacity | Description | Packaging Unit / Case |
|--------|----------|---------------------------------------|--------------------------|
| 583371 | 10 lts | Carboy with Handles - LDPE | 1/6 |
| 584402 | 15 lts | Carboy with Handles - LDPE | 1/6 |
| 583372 | 20 lts | Carboy with Handles - LDPE | 1/4 |
| 584430 | 25 lts | Carboy with Handles - LDPE | 1/4 |
| 583373 | 50 lts | Carboy with Handles - LDPE | 1/1 |
| 583471 | 10 lts | Wide-Mouth Carboy with Handles - LDPE | 1/6 |
| 583472 | 20 lts | Wide-Mouth Carboy with Handles - LDPE | 1/4 |
| 584401 | 5 lts | Carboy with Spigot - LDPE | 1/6 |
| 584380 | 10 lts | Carboy with Spigot - LDPE | 1/6 |
| 584390 | 20 lts | Carboy with Spigot - LDPE | 1 / 4 |
| 584404 | 25 lts | Carboy with Spigot - LDPE | 1/4 |
| 584400 | 50 lts | Carboy with Spigot - LDPE | 1/1 |
| 586380 | 10 lts | Carboy with Tubulation - LDPE | 1/6 |
| 586390 | 20 lts | Carboy with Tubulation - LDPE | 1/4 |





Recommended Applications

- Stable at low temperature storage
- Stirring and storage of intermediates

Polypropylene

Carboy Autoclavable





Recommended Applications

- Whenever autoclaving/ sterilization is necessary
- Vacuum or extreme use conditions (heavy-duty)
- As reservoir for dispensing
- Solid or powder material storage (wide-mouth)

Polypropylene

Carboy Sanitary flange/ Neck Autoclavable





Recommended Applications

For sterile transfer of product

- Leakproof PP cap for guaranteed performance
- Convenient shoulder or attached metal handles for easy carrying and pouring
- Graduations for volume determination at a glance
- Heavy-duty version for vacuum or extreme conditions
- Wide-mouth version for easy cleaning, filling and dispensing

| Code | Capacity | Description | Packaging Unit / Case |
|--------|----------|--|--------------------------|
| 583250 | 10 lts | Autoclavable Carboy with Handles - PP | 1/6 |
| 583251 | 15 lts | Autoclavable Carboy with Handles - PP | 1/6 |
| 583260 | 20 lts | Autoclavable Carboy with Handles - PP | 1/4 |
| 583261 | 25 lts | Autoclavable Carboy with Handles - PP | 1/4 |
| 583270 | 50 lts | Autoclavable Carboy with Handles - PP | 1/1 |
| 583265 | 10 lts | Carboy Heavy Duty with Handles - PP | 1/6 |
| 583266 | 20 lts | Carboy Heavy Duty with Handles - PP | 1/4 |
| 583351 | 10 lts | Wide-Mouth Carboy with Handles - PP | 1/6 |
| 583272 | 15 lts | Wide-Mouth Carboy with Handles - PP | 1/6 |
| 583361 | 20 lts | Wide-Mouth Carboy with Handles - PP | 1/4 |
| 583279 | 5 lts | Autoclavable Carboy with Spigot - PP | 1/6 |
| 583280 | 10 lts | Autoclavable Carboy with Spigot - PP | 1/6 |
| 583390 | 20 lts | Autoclavable Carboy with Spigot - PP | 1/4 |
| 583263 | 25 lts | Autoclavable Carboy with Spigot - PP | 1/4 |
| 583300 | 50 lts | Autoclavable Carboy with Spigot - PP | 1/4 |
| 585380 | 10 lts | Autoclavable Carboy with Tubulation - PP | 1/6 |
| 585390 | 20 lts | Autoclavable Carboy with Tubulation - PP | 1/4 |
| 683240 | 5 lts | Autoclavable Rectangular Carboy with Spigot - PP | 1/6 |
| 683250 | 10 lts | Autoclavable Rectangular Carboy with Spigot - PP | 1/6 |
| 683260 | 20 lts | Autoclavable Rectangular Carboy with Spigot - PP | 1/4 |
| 683300 | 8 lts | Autoclavable Handyboy with Spigot - PP (Stackable) | 1/4 |

- Easier to clean
- Autoclavable
- Round shape for homogeneity during stirring
- Graduations for volume determination at a glance
- Convenient shoulder handles for easy carrying

| Code | Capacity | Description | Packaging Unit / Case |
|--------|----------|----------------------------------|--------------------------|
| 584301 | 10 lts | Carboy with Sanitary Neck - PP | 1 |
| 584302 | 20 lts | Carboy with Sanitary Neck - PP | 1 |
| 584303 | 50 lts | Carboy with Sanitary Neck - PP | 1 |
| 584304 | 10 lts | Carboy with Sanitary Flange - PP | 1 |
| 584305 | 20 lts | Carboy with Sanitary Flange - PP | 1 |
| 584306 | 50 lts | Carboy with Sanitary Flange - PP | 1 |

Leak Testing

Leakage test by Vacuum Method

Product Criterion

Bottles / Vials upto 1000 ml

Sample Size

One full cycle shot quantity (Twice per shift) or as defined by customer sampling plan

Test Equipment

Vacuum Desiccator

Test Procedure

- 1. Fill the bottle / vial with water up to 80 % of its brim volume and secure tightly with closure by hand.
- 2. Invert the bottle / vial and visually check for any leakage.
- 3. Keep the bottle for 3 5 min in Vacuum Desiccator at 635 mm of Hg.
- 4. Release the vacuum and check for any trace of water on the threads of bottle or closure.
- 5. Open the closure and check for any trace of water on the threads of bottle or closure.
- 6. If no leakage is observed in the testing, the bottles are certified leakproof.

Leakage test by Gravity Method

Product Criterion

Bottles / Containers above 1000 ml

Sample Size

One full cycle shot quantity (Twice per shift) or as defined by customer sampling plan.

Test Procedure

- 1. Fill the bottles with water up to 80 % of its brim volume and secure lightly with closure by hand.
- 2. Invert the bottle and visually check for any leakage.
- 3. Leave the bottle for 24 hours in inverted condition.
- 4. After 24 hours, check bottle for any leakage.
- 5. Open the closure and check for any trace of water on the threads of bottle or closure.
- 6. If no leakage is observed in the testing, the bottles are certified leakproof.

Autoclaving Instructions

Tarsons recommends an autoclaving cycle is 121°C, 15 psi for 20 minutes for its Polypropylene, Polycarbonate and Polymethylpentene.

Autoclaving

Procedure

- a) Autoclave testing to be carried out in wet method for Polypropylene bottles and Polycarbonate flasks having 75% water filled.
- b) Autoclave testing to be carried out in dry method for Polypropylene Micro Tips, Centrifuge Tubes, Funnel, etc.
- c) Autoclave testing to be carried out in dry method for Polymethylpentene Lab Wares

Test Parameters

- 1. Temperature = 121°C
- 2. Pressure = 15 psi
- 3. Time = 20 minutes

Important Notes

- Before autoclaving, just set closure on top of the container without engaging the threads
 (if this is not done, pressure differentials may cause containers to collapse during autoclaving)
- For best results, use a slow exhaust cycle
- Clean and rinse item with distilled water before autoclaving
- Sterilizing reduces mechanical strength. Do not use PC vessels for vacuum application during autoclaving
- Certain chemicals which have no appreciable effect on resins at room temperature may cause deterioration at autoclavable temperature

Precautions while autoclaving Polycarbonate

- Polycarbonate must be thoroughly rinsed before autoclaving because detergent residues cause crazing and spotting
- The cycle should be limited to 20 minutes at 121°C since PC shows loss of mechanical strength after repeated autoclaving

Practices to avoid during Autoclaving

Autoclaving

- 1. **DO NOT** stack the bottles, jars and carboys
- 2. **DO NOT** place the product in an autoclaving basket with other objects placed on top
- 3. **DO NOT** tighten the closure removing closure is safer
- 4. **DO NOT** place aluminum foil, gauze, cotton, tape or sterile wraps over the opening

The guidelines are for empty containers only. Tarsons does not provide any validation / autoclaving manual/ instructions/information on autoclaving with liquid inside any of our products. The consumer must perform all validation work regarding the procedure.

We assist with the selection of resins and list out the recommended containers for your applications.

