



BD Medical - Pharmaceutical Systems

Your business partner with over 60 years of experience in Drug Delivery Systems

Supply that can lean on dual sourcing

- **3 billion+** plunger stoppers capacity with dual sourcing capabilities¹
- **2** Manufacturing sites : EU and US

Known and trusted plunger stoppers

- **#1 supplier** of ready to use plunger stoppers for prefilled syringes²
- **18 billion+** PFS* plunger stoppers sold since 2015 to over 600 customers³
- **>99.8%** "Batch within specifications - Quality confirmed"⁴

Elastomer, drug device combination product expertise

- **100+** BD proprietary plunger stopper molds designed, following BD barrel specifications
- **Material Science experts** Analytical studies (predictive tools, Extractables & Leachables studies, subvisible particle analysis),
- **30+ regulatory experts** supporting drug-device combination product registration in the US, EU and Asia

* Prefillable syringes



BD tools for drug combination product developers

BD SCF™ Plunger Stoppers

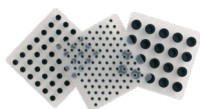


Select formulations†

| | Uncoated | | | | Coated | | |
|---------|-----------------------|-----------------------|--------------|-----------------------|-----------------------------------|---------------------------------------|----------------|
| | Datwyler FM257 | Datwyler M457 | West 4023/50 | West 4432/50 | West 4432/50 BD SCF™ FluroTec®*** | Aptar BD SCF™ Premium Coat®** 6720 GC | |
| Packing | 1 mL | | | | | | |
| | BSCF | ✓ | | ✓ | ✓ | BD Visioguard™ | |
| | NSCF | ✓ | | ✓ | ✓ | | |
| | TSCF | | | ✓ + BD Visioguard™ | ✓ | ✓ + BD Visioguard™ | BD Visioguard™ |
| | 1-3 mL | | | | | | |
| | BSCF | ✓ | ✓ | ✓ | ✓ | ✓ | Moy22 (NFHU) |
| NSCF | ✓ | ✓ | ✓ | ✓ | ✓ | | |
| TSCF | ✓ + BD Visioguard™ | ✓ + BD Visioguard™ | ✓ | ✓ | ✓ | FY23 (NFHU) | |

Packaging

- Nested SCF™



- Bagged SCF™



- Transfer door-SCF™



Availability

- Fast access to quantities sized for development needs, via BD PartnerPath™ Program:
 - 1-3 ml FM457 TSCF – SKU 47433210 (MOQ 15000)
 - 1-3 ml FM457 BSCF – SKU 47375710 (MOQ 6000)
 - 1-3 ml 4023FLUR TSCF – SKU 47190510 (MOQ 15000)
 - 1-3 ml 4023 BSCF – SKU 47285710 (MOQ 5624)
 - 1 mL 4023FLUR TSCF – SKU 47431310 (MOQ 26000)
 - 1 mL 4023FLUR BSCF – SKU 47375910 (MOQ 9000)
 - 1 mL PREMIUMCOAT VISIO TSCF – SKU 47607910 (MOQ 2600)
- Samples available on demand
- Commercial availability to be evaluated against requirements

Key benefits

- Access to a wide range of formulations for drug compatibility:†**
 - 6+ formulations
 - Including 2 coated formulations
- Multi-sourcing network for business continuity for selected product:**
 - Footprint in Europe and US
 - Leverage of manufacturing dual sourcing options when available
- Large choice of packaging:**
 - BSCF (Bagged-SCF)
 - NSCF (Nested-SCF)/F-SCF (Flexible-SCF), compatible with VanRx filling equipment (in development)
 - TSCF (Transfer door-SCF)/O-TSCF Outside opening TSCF (in development)
- Access to stopper inspection technology:**
 - BD Visioguard™ Vision Inspected stoppers features 100% automated visual inspection⁵ to identify defects and support operational excellence

† Non exhaustive list

* SCF: Sterile Clean and ready to Fill

** PremiumCoat is a registered trademark of Aptar Pharma

*** FluroTec is a registered trademark of West Pharmaceutical Services, Inc

MOQ : Minimum Order Quantity



References

1. BDM-PS supply chain demand (BDMPS Supply Chain demand file_Desy 2018-2023), August 2021
2. BDM-PS estimate based on 2020 market data
3. BDM-PS sales analysis [internal analysis]. Pont-de-Claix, FR: Becton, Dickinson and Company; 2020
4. BDM-PS Quality metrics for plunger stoppers; sept. 2021
5. BDM-PS internal document SD20203388

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Becton Dickinson France S.A.S - Share capital: 64 719 915 €

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