

Technical Packaging Specification

Item Code:	D8376532	Version:	1.0
Item Description:	TRIG,MLP,4X240MM,SCR,SP,BCP	Status:	Published
Project Name:	Screw-on trigger BCP	Project Number:	
Component Group:	Triggers	Predecessor Code:	
Component Class:	TRIGGER	Component Material:	Composite - Plastic Only
Supply Region(s):	Southern Europe Eastern Europe	Manufacturing Site(s):	Mira Poland Copackers
Document Sub-Type:	Standard Specification		

Group Packaging Specification: D0000023

Description

1.2cc Spray/Spray Screw-on Trigger

Dimensions

Dimensions

	Value	Tolerances	U.O.M	Acceptance Criteria
Drawing Reference:	667592 V0.0			
Shroud - Major axis at base:		±	mm	Major
Shroud - Minor axis at base:	26.20	±0.30	mm	Major
Shroud - Maximum major axis:	91.40	±1.50	mm	Major
Shroud - Maximum minor axis:	33.60	±0.50	mm	Major
Shroud - Overall height:	37.50	±0.50	mm	Major
Trigger - seal diameter at flange:	24.50	±0.20	mm	Critical
Trigger - Internal chassis height (base to seal):	15.30	±0.30	mm	Major
Trigger - Internal chassis diameter (at base):	28.20	±0.20	mm	Major
Trigger - Internal chassis diameter (at location lugs):	NA	NA	mm	
Dip Tube length (FBOC):	240.00	±2.00	mm	Major
Dip Tube curvature (maximum):	108.00	±	mm	Major
Output per stroke:	1.20	±0.24	ml	Major
Total Weight (shroud included):	23.30	±10%	g	Major

Extra Dimensions	Value	Tolerance	U.O.M.	Acceptance Criteria
Closure Height	21.10	±0.20	mm	major
Thread Pitch	4.23	±0.20	mm	critical
Thread Crest to Crest	25.50	±0.20	mm	critical

Diameter	31.50	±0.20	mm	major
External Closure Diameter (at base)	1.20		mm	major
Gasket thickness				

Supplier CoA must include test results for all 'Critical' and 'Major' parameters

Diptube - V notch cut

Material

Material			
Component	Drawing Ref.	Material	Approved Grades
Shroud	approx. weight 5.3g	PP	SINOPEC T30S
Nozzle	approx. weight 1.6g	PP	SINOPEC T30S
Insert	approx. weight 0.2g	LDPE	SINOPEC Q281
Plastic Spring	approx. weight 1.8g	POM	TICONA CE67
Ball	approx. weight 0.1g	POM	TICONA CE67
Stem	approx. weight 0.7g	PP	SINOPEC T30S
Piston	approx. weight 1.5g	LDPE	CNPC 951-050
Body	approx. weight 5.0g	PP	SINOPEC T30S
Gasket	approx. weight 0.1g	LDPE Foam	CNPC 951-050
Retainer	approx. weight 0.6g	PP	SINOPEC T30S
Trigger	approx. weight 1.9g	PP	SINOPEC T30S
Closure	approx. weight 3.0g	PP	SINOPEC T30S
Dip Tube	approx. weight 1.5g	LDPE	SINOPEC Q281

Each component part should be entered into the **Component** field each on a separate line.

- Only qualified materials should be used in every production run. Any change in terms of material composition and/or significant process conditions should be aligned with RB technical representative.
- Supplier has report on Heavy Metals (Pb, Cd, Hg, Cr (VI)) concentration in packaging
- Supplier has declaration of Masterbatch producers regarding Heavy Metals (Pb, Cd, Hg, Cr (VI)) concentration in the masterbatch
- Supplier has report on Heavy Metals (Pb, Cd, Hg, Cr (VI)) concentration in masterbatches
- There are no any other dangerous substances with N-symbol assigned present in packaging
- Suggested method of recovery: Material recycling EN 13430: latest version

Directive on Packaging and Packaging Waste (94/62/EC), (CONEG) -

- Heavy Metals if present in packaging or packaging components, must contain less than 100 ppm cumulative of Mercury + Lead + Cadmium + Hexavalent Chromium

Refer to GPS 'STATUTORY' Section for other compliance requirements

Performance

Performance					
Test	Values	UOM	Frequency	Test Method	Test Method Code
Spray Pattern Diameter at 20 cm (with water)	270 +/- 50	mm	during development, for each material change, or tool change, in case of issue	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Dosage	1.20 +/- 0.24	ml	during development, for each material change, or tool change, in case of issue	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Dribbling	max 0.30	ml	during development, in case of	DATP test 1	*

Dip Tube Bending	max 108	mm	each batch	issue	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Spray Frequency	min 15	full actuations/10 seconds	during development		DATP 2	*
Durability / 2000 strokes	0 defects observed	Attribute	One time during qualification (each tool / material modification)		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Priming (each individual trigger)	max 7	strokes	each batch		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Priming (average for samples population)	less than 6	strokes	each batch		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Dip tube retention force (fresh trigger)	min 10	N	each batch		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Actuation force	max 30	N	One time during qualification (each tool / material modification)		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Readability of "ON / OFF" selector	ON/OFF position must be clearly recognizable by consumers	*	during development		PA	*
Closure rotation torque (unscrewed trigger)	free rotation, rotation resistance not greater than 5	N*cm	each batch		PKG-TORQUE FORCE MEASUREMENT-CLOSURES WITH THREAD	D0002674
Trigger body rotation torque (trigger screwed on the bottle)	min. 17	N*cm	each batch		PKG-TORQUE FORCE MEASUREMENT-CLOSURES WITH THREAD	D0002674
Removal Torque	min 100	N*cm	Reference Value		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Atomization (amount of particles smaller than 10um) - refer WUT report	2	%	during development		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Product Residue (bottle evacuation test)	max 3	% of nominal fill	during development		PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Environmental Stress Cracking Resistance (ESCR) Conditions: 40°C + 50N per each bottle / 3 weeks TO BE TESTED BY RB	0 defects observed	Attribute	One time during qualification (each tool / material modification)		PKG-ESCR-SHORT AND LONG TERM TEST METHOD-PLASTICS	D0002258
Drop Test from 1,2m (cracked or disconnected shrouds are acceptable as long as trigger is functional) TO BE TESTED BY RB	0 defects observed	attribute	during development or material / construction change / incase of issue		PKG-DROP TEST-PLASTIC CONTAINERS	D0002262

Express Leak test / static sealing (Low tension water or dedicated product, 1 hour in horizontal position)	0 defects observed	Attribute	Each production batch	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Leak test / static sealing (Low tension water or dedicated product, 72 hours in horizontal position) TO BE TESTED BY RB	0 defects observed	Attribute	One time during validation (each tool/material change). + One random batch once a week.	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Leak test / dynamic sealing (Low tension water or dedicated product)	0 defects observed	Attribute	Each production batch	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Compatibility test (Conditions: 1) RT 23°C / 12 weeks; 2) 4-5°C / 12 weeks; 3) 40°C, 75%RH / 12 weeks; 4) 50°C / 6 weeks TO BE TESTED BY RB	0 defects observed	Attribute	One time during qualification (each tool / material modification)	PKG-COMPATIBILITY-PRIMARY PACKAGING-NON AEROSOL	D0254015
Long term dispensing performance TO BE TESTED BY RB	0 defects observed	Attribute	One time during qualification (each tool / material modification)	PKG-TRIGGER OR PUMP-TESTS AND VALIDATION	D0038074
Venting TO BE TESTED BY RB	0 defects observed	Attribute	One time during qualification (each tool / material modification)	The trigger bottle should not be deformed after 20 strokes at triggering speed of 60 strokes/minute (screw the trigger on standard bottle with standard application torque)	*
Nozzle twist torque TO BE TESTED BY RB	20 - 78	N*cm	One time during qualification / in case of issues	Place the trigger on torque meter in such a way that nozzle will be on the top. Fix trigger from movement. Switch the nozzle from OFF to ON position. Record max. torque.	*
Closure thread resistance during application TO BE TESTED BY RB	max. 6 while applying the trigger on the bottle	N*cm	One time during qualification / in case of issues	Fix the trigger in the torque meter, screw the bottle onto the trigger. Record resistance torque of the thread during application.	*
Appearance @ 0.5 meters length (amount of defective samples in line with AQL)	0 defects observed	*	Each production batch	Visual check for any noticeable deviation of trigger color or overall shape vs. approved sample. Check if there are no marks, scratches, inclusions or anything which is not intended to be there.	*

General Notes:

In case if sampling plan is not defined by Test Method indicated in table above, please refer to ISO 3951 for variables and ISO 2859 for attributes. Special Inspection level S3 @ AQL 0.15% for critical parameters, AQL 1% for major parameters, AQL 4% for minor parameters.

Critical parameters: Drop Test, Leak tests, ESCR, Compatibility test, Priming, Atomization / amount of particles less than 10 microns, Major parameters: Dip tube removal force, Actuation force, Long term dispensing performance, Durability

Minor parameters: Nozzle twist torque, Appearance, Atomization / rest parameters (apart from amount of particles less than 10 microns), Bottle evacuation test

Delivery Conditions

Delivery Conditions

General: Triggers to be delivered in such a way that they arrive in good conditions at the filling location. Precaution is to be taken that triggers do not get scratched, pick up dust or any foreign material during transport and storage.

Secondary packaging and paletization: Triggers should be packed in corrugated boxes.

Parameter	
Box dimensions, mm	570x330x390
Amount of triggers / box *	350
Pallet size, mm	1200x1000x150 (empty pallet size)
Maximum pallet height, mm	2100 (SEA/RAIL: 6 cartons per layer and 5 layers per pallet)
Amount of boxes per pallet	30 (SEA/RAIL)
Amount of triggers per pallet	10500 (SEA/RAIL)

* Amount of triggers indicated for standard tube size.

Labelling Information: Every box with triggers should contain label (or printing on case or combination) with information per table below. Each pallet should have label on each side of the load with information below.

Information on box	Information on pallet
<ul style="list-style-type: none">● Batch number● Production date● Customer's product code● Rieke's product code● Delivery address● Quantity per box● Customer Description● Customer Code	<ul style="list-style-type: none">● Batch number● Production date● Customer's product code● Rieke's product code● Delivery address● Quantity per pallet● Amount of boxes per pallet● Customer Description● Customer Code

Storage and handling conditions: Store triggers in dry and clean warehouse with temperatures from +5°C to +35°C (40°F to 95°F) and relative humidity between 30 and 70%, at least 1 meter (3,3 feet) from heating devices. Triggers should be protected from moisture, high UV radiation and direct sun rays. It is recommended triggers will pass minimum 12 hrs acclimatization before using it in production. Make sure application is happening in temperatures equal or greater than +17°C (63°F). Best before - 24 months from date of triggers production, indicated at supplier's label.

Certificate of Analysis (CoA): All deliveries must come with CoA. All critical & major parameters must be check in line with frequency listed in Performance Section or if not specified, for each production lot.

Environmental Data

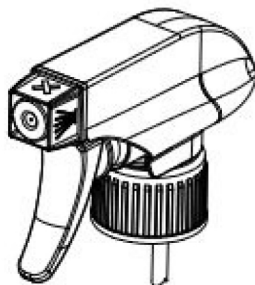
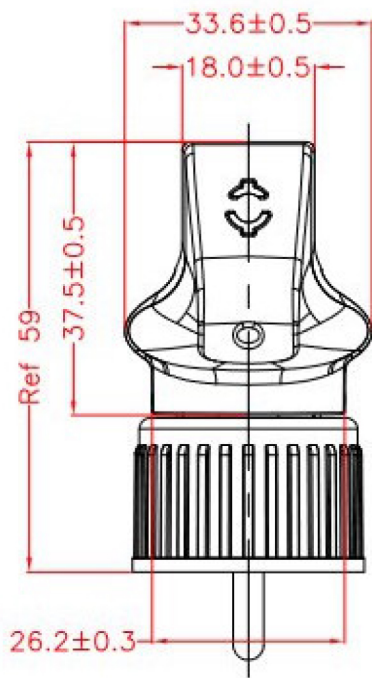
Environmental Data

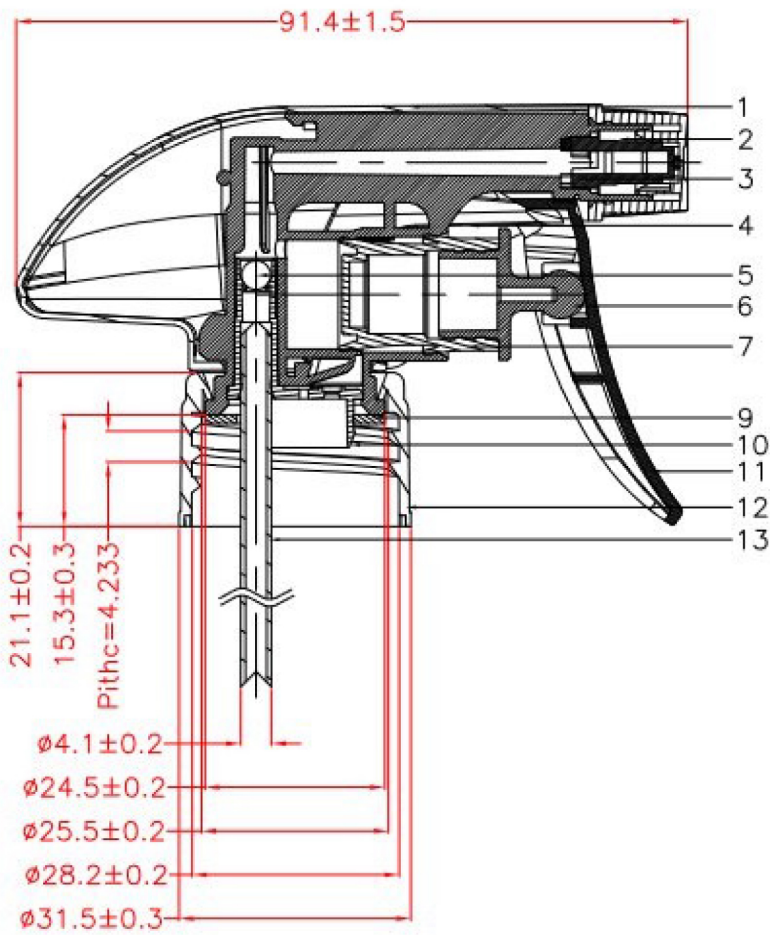
Material	Weight	UOM	%PCR
Composite - Plastic Only	23.3	GM	0

Packaging Type: Primary

Picture

Picture





INDEX	DESCRIPTION	MATERIAL	Weight(g)
1	Shroud	PP T30S	5.3
2	Nozzle	PP T30S	1.6
3	Insert	LDPE Q281	0.2
4	Plastic Spring	POM CE67	1.8
5	Ball	POM CE67	0.1
6	Stem	PP T30S	0.7
7	Piston	LDPE 951-050	1.5
8	Body	PP T30S	5.0
9	Gasket	LDPE 951-050	0.1
10	Retainer	PP T30S	0.6
11	Trigger	PP T30S	1.9
12	Closure	PP T30S	3.0
13	Dip Tube	LDPE Q281	1.5

28/410 1.2cc All-Plastic Trigger Sprayer Spray/Spray				
Rev	Date	DESCRIPTION		
			SCALE	
DWG NO.	667592 V0.0		SHEET	1 of 1
PART NO.	667592	DATE	05/25/20	



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REACH Data

REACH Data

Article This item is classified as an Article for EU REACH

Classification:

SVHC/SIR Content: Level of SVHCs is below 0.1% and there are no SIRs present

Additional Information

Additional Information

Source details:

Particle size distribution report:



Report Rieke ENG.pdf

- This Technical Packaging Specification is a property of RB. Not to be changed without written agreement and proper validation when required.
- In case of conflict between this specification and any other linked technical document, please contact your RB technical representative for clarification.

The specification has been prepared relying on Declaration of Conformity issued by suppliers.

The concentration level of: Pb, Cd, Hg, Cr (VI): – below 100 ppm /CR 13695-1:2002, CR 13695-2:2002/	
YES	<input checked="" type="checkbox"/>
NO	<input type="checkbox"/>
Report on heavy metals (Pb Cd, Hg, Cr VI) concentration in the packaging (closure, bottle, etc.)*	
YES	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>
Declaration of masterbatch producer on fulfilling the requirements regarding the concentration of heavy metals: Pb, Cd, Hg, Cr (VI)*	
YES	<input checked="" type="checkbox"/>
NO	<input type="checkbox"/>
Report on heavy metals (Pb Cd, Hg, Cr VI) concentration in the masterbatch	
YES	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>
Presence of other dangerous substances with the N symbol assigned	
YES	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>
Reusability /EN 13429:2005/	
YES	<input type="checkbox"/>
NO	<input checked="" type="checkbox"/>
Suggested method of recovery	
Material recycling /EN 13430:2002/	<input checked="" type="checkbox"/>
Burning with energy recovery /EN 13431:2002/	<input type="checkbox"/> - Minimal inferior calorific energy / calorific gain in MJ/kg/.....
Composting /EN 13432:2002/	<input type="checkbox"/>
Biodegradability /EN 13432:2002	<input type="checkbox"/>

This specification must be approved & signed by the supplier prior to first production.

At the same time, this should mean approval of D0000023 which is a part of each Trigger specification and AQL References from RB Global Product Quality Manual V3.0 / 28 June 2010.

Source Details

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History

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