Braskem

FPT300F

Homopolymer Polypropylene

- Good Mold Release, Excellent Part Finish (Low Bloom)
- Suggested Uses Include Housewares, Caps and Closures, Mugs / Cups, Thin-Walled Containers

| Property | Units | Typical Value | Test Method |
|--|------------------|------------------|-------------|
| Nominal Melt Flow Rate (230°C/2.16kg) | g/10 min | 30 · | ASTM D1238 |
| Tensile Strength at Yield (2 in/mln, 50 mm/mln) | psi MPa | 4,800 33 | ASTM D638 |
| Elongation at Yield (2 in/min, 50 mm/min) | % | 10 | ASTM D638 |
| Flexural Modulus (0.05 ln/mln, 1.3 mm/mln, 1% secant) | psi MPa | 200,000 1,379 | ASTM D790A |
| Notched Izod Impact Strength at 23°C | ft-lbs/in J/m | 0.7 37 | ASTM D256A |
| Rockwell Hardness | R | 104 | ASTM D785 |

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For cautions and other information relating to handling of

550 Technology Drive

Revision Date: Monday, March 23, 2009

and exposure to this product, please see material safety data sheet code number C4001 published by Braskem.

Pittsburgh, PA 15219 1-800-223-8871

www.braskem.com



MOLD-RITE PLASTICS LLC. 1 Plant Street P.O. Box 160 Plattsburgh NY 12901 (518)561-1812 https://www.mrpcap.com

Product Data Sheet

MRPWH01 White

Product Description

This specification designated by Mold-Rite Plastics covers all colorants that meet the typical value data listed below.

Regulatory Compliance

FDA – Title 21 CFR Section 170-199 for Food & Drug Contact RoHS Compliant CONEG/Heavy Metal Compliant Proposition 65 Compliant

| Typical Properties | Typical Value |
|----------------------------|---------------|
| | |
| Density | .90 |
| Melt Index | 30 |
| Pellets | Standard |
| Recommended Let Down Ratio | 50:1 |
| Carrier Resin | PP |
| Estimated Heat Stability | 450-500 °F |
| Visual Evaluation | Excellent |
| Additives | None |
| DE Tolerance | < 2.00 |

For further regulatory information, contact Mold-Rite Plastics customer service or sales department.

Notes: These are typical properties not to be construed as specifications. Mold-Rite Plastics reserves that right to include any other colorant that meets that above data values and regulatory requirements.

This product data sheet covers multiple colorant formulations that meet the above typical data values and regulatory requirements. All listed formulas have similar physical, chemical and processing properties. Listed known formulas; Polymer Concentrates – 10536, Penn Color 60W5221

All results were obtained from manufacturer product data sheets (where applicable). The data are intended as a general guide only and do not necessarily represent results that may be obtained elsewhere. The use of Mold-Rite Plastics products must be guided by the users own methods for selection of proper formulation. Mold-Rite Plastics disclaims any responsibility for misuse or miss application of its products. Mold-Rite Plastics liability and customer's exclusive remedy for any claims arising out of sales of its products are expressly limited at customer option for replacement not to exceed the purchase price plus transportation charges thereon in respect to any material which damage is claimed.



Lift 'n' Peel™ **Technical Data Sheet**

Lift 'n' Peel™ U5 LP-H

Revisions: U5 LP-H-11052013

MRP DESCRIPTION - (LPH)LIFTNPEELH.007 BL LIFTNPEEL FOAM

| MIN DECONI HON- | (LPH)LIFTNPEELH.UC | // DL LII INFL | LLIOAW | ···· | | | |
|-----------------------|--|------------------------------------|---|--------------------------|----------------|------------------------------------|------------------------|
| Product | Lift 'n' Peel™ U5 LF | P-H | | | | | |
| Scope | One piece top-tabbe for use on PE, PP, means of visual tam is suggeseted for us | PVC, PET, PS a per evidence. Th | and glass. After nis material will v | removal of ent oxygen | the seal, pa | per will remain apor through th | on the finish as |
| Composition | Material | Standard | Metric | - (G | 3079 | r i baker | 2 |
| | PET Film | 0.001" | 0.025mm | I . | | Film | 4 |
| | PET Tab | 0.0005" | 0.013mm | | PET Tab | | Į. |
| • | Polyolefin Foam | 0.0045" | 0.114mm | ian E | Polyelet Fo | | ∌ à |
| | Foil | 0.001" | . 0.025mm | | Coated W | ilte Paper | € |
| | White Paper | . 0.0028" | 0.071mm | | Heat | Seal | a |
| | Heat Seal | 0.00066* | 0.0168mm | | | | |
| EDA Status ed OFD d | 177.4040 | | | | | | ding layers not shown. |
| FDA Status: 21 CFR 1 | Recomme | nded Storage a | ind Handli | ng: Refer t | o website | | |
| Drug Master File (DMI | F): 11485 | EU / EP Re | g.: | EK, | | | |

GTR Oxygen: 197.6 cc Oxygen/100 IN2 * 24hrs. @ 100° F, ASTM F-1249

MVTR: 0.631 gm water/100IN2 * 24 hrs. @ 75° F, ASTM F-2622-08

Sealing to glass containers: Selig can not guarantee the performance or seal integrity of this materials when applied to any glass (treated or untreated) container. We suggest you contact your glass supplier for recommendations on glass treatments that may or may not improve performance or seal integrity.

Manufacturing Location: North America

Selig materials are compliant with current USFDA Food allergen Guidelines.

Selig materials are compliant with California Proposition 65 labeling requirements.

Selig materials are compliant with limitation of heavy metals in packaging per CONEG & EU 94/62/EC, article 11.

MSDS's are not required as Selig is not a chemical manufacturer or distributor and our products are 'articles'

Intended for food packaging per 29 CFR 1910.1200 (HazCom).

The Information contained within this product data bulletin is to be used as a general guide in determining which structures are offered for sealing to specific container materials. All of the information which we provide is reliable to the best of our knowledge, but the accuracy thereof is not guaranteed. We suggest that consumers determine suitability for their own application.

www.seligsealing.com

Corporate Headquarters 342 E Wabash St Forrest, IL 61741, USA Fax: +1 (815) 657-7584

North American Sales Selig Sealing Products, Inc. Selig Sealing Products, Inc. 184 Shuman Blvd., Suite 310 Naperville, IL 60563, USA Phone: +1 (815) 785-2100 Phone: +1 (630) 922-3158 Fax: +1 (630) 922-8469

European Sales and Manufacturing Selig UK, LTD 635-637 Ajax Avenue Slough Trading Estate Slough Berkshire SL14BH UK Phone: +44 (0) 1753 773 000 Fax: +44 (0) 1753 773 111

Canadian Manufacturing Sella Canada, ULC 145 Edward Street Aurora, Ontario Canada, L4G 1W3 CH-8172 Niederglatt Phone: +1 (905) 727-0114 Fax: +1 (905) 727-8544

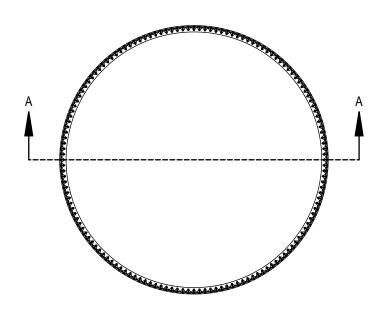
Swiss Manufacturing Selig Switzerland LTD Bahnhofstrasse 11 Phone: +41 (0) 44 851 50 50 Fax: +41 (0) 44 851 50 51

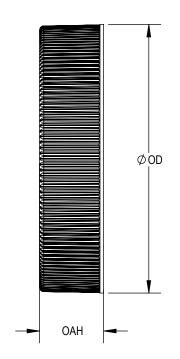


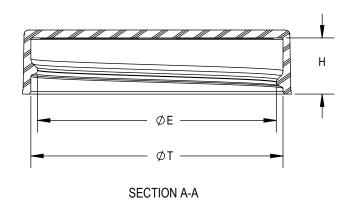












THREAD DETAIL INFORMATION: 6 THREADS PER INCH, 0.167" PITCH REFERENCE **TOLERANCE UNITS DIMENSION** Ε 1.656 [42.06] ±.010 [0.25] in [mm] Τ ±.010 [0.25] 1.748 [44.40] in [mm] 0.390 [9.91] Η ±.010 [0.25] in [mm] OD ±.010 [0.25] in [mm] 1.865 [47.37] OAH 0.445 [11.30] ±.010 [0.25] in [mm] PART WEIGHT 3.9 ± 0.3

STATIC TORQUE RECOMMENDATION 17-27 in-lbs THIS REQUIREMENT MAY VARY DEPENDING

UPON BOTTLE MATERIAL, NECK FINISH, AND CAPPING EQUIPMENT

THE CLOSURE DIMENSIONS
DEPICTED ARE THOSE WHICH HAVE GENERALLY BEEN FOUND TO BE FUNCTIONAL BASED ON INDUSTRY EXPERIENCE BECAUSE OF VARIABILITY IN GLASS AND PLASTIC CONTAINER FINISHES, EACH CLOSURE/FINISH SYSTEM SHOULD BE INDIVIDUALLY EVALUATED AND TESTED TO ENSURE IT MEETS APPLICABLE PERFORMANCE CRITERIA. SEE QUALITY ASSURANCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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DRAWING TYPE: CUSTOMER

REPLACES DRAWINGS: DIMENSIONS ENCLOSED IN () INDICATE REFERENCE DIMENSIONS AND NO TOLERANCE LIMITS ARE ESTABLISHED C-3010

| '' | OLERANCES UNLESS | OTHERWISE SPECIF | -IED |
|--------------------|------------------|------------------|-----------|
| DIMENSION (inches) | TOLERANCE | DIMENSION (mm) | TOLERANCE |
| 0-0.787 | ±0.006 | 0-20 | ±0.152 |
| 0.788-1.181 | ±0.008 | 21-30 | ±0.203 |
| 1.182-2.756 | ±0.012 | 31-70 | ±0.305 |
| 2.757-3.937 | ±0.016 | 71-100 | ±0.406 |
| 3.938-5.096 | ±0.020 | 101-150 | ±0.508 |
| 5.097-7.874 | ±0.024 | 151-200 | ±0.610 |
| 7.875-9.843 | ±0.032 | 201-250 | ±0.813 |
| | ANGULAR TO | LERANCE ± 2° | |

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THIRD ANGLE PROJECTION

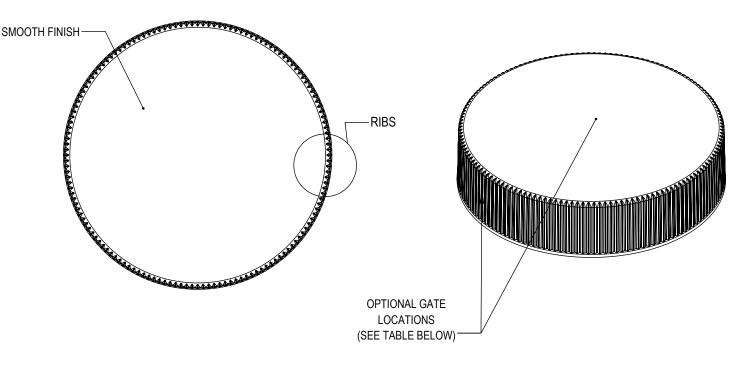
DISTRIBUTION DRAWING NAME CODE

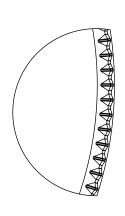
Innovative • Reliable • Responsive 45-400 CT CLOSURE

RS (Ribbed Side - Smooth Top) DRAWING NUMBER

CQA - 10301 MATERIAL **POLYPROPYLENE** 6/3/2016 DRAWN BY. JDM ODEL NUMBER PM 10297 45-400 CT JDM 5/5/2017 SHEET SIZE SHFF. REV NE SCALE 5/5/2017 QA APPR. 1:1 00.AB 8.5in*11in 1 of 3

| - | | | , | - | , | 0 | | | |
|-----------|------|-----|-------------------------------|------------|-----------------|------------------|------------------|--------|-----|
| REVISIONS | | | | | | | | | |
| DATE | REV. | N/P | PRODUCT DRAWING REQUEST | | DE | SCRIPTION | | ENG | DRW |
| 6/3/2016 | 00 | AA | PDR 16-025 | UPDATE DRA | WING FORMAT, RE | FER TO C-3010 FO | R REVISION HISTO | RY JDM | JDM |
| 5/5/2017 | 00 | AB | | | ADDED GATI | E LOCATION OPTIC | N | JDM | JDM |





DETAIL RIBS SCALE 4:1

| MOLD NUMBER | GATE LOCATION |
|-------------|---------------|
| 45001 | SIDE |
| 45002 | SIDE |
| 45003 | SIDE |
| 45005 | SIDE |
| 45007 | SIDE |
| 45011 | TOP CENTER |

THE CLOSURE DIMENSIONS
DEPICTED ARE THOSE WHICH HAVE GENERALLY BEEN FOUND TO BE FUNCTIONAL BASED ON INDUSTRY EXPERIENCE BECAUSE OF VARIABILITY IN GLASS AND PLASTIC CONTAINER FINISHES, EACH CLOSURE/FINISH SYSTEM SHOULD BE INDIVIDUALLY EVALUATED AND TESTED TO ENSURE IT MEETS APPLICABLE PERFORMANCE CRITERIA. SEE QUALITY ASSURANCE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

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| 1 | | | | | | |
|---|-----------------------------------|------------------|-----------|--|--|--|
| DRAWING TYPE: CUSTOMER | | | | | | |
| REFERENCES: 45001, 45002, 45003, 45005, 45007, 45011 DIMENSIONS ENCLOSED IN () INDICATE REFERENCE DIMENSIONS AND NO TOLERANCE LIMITS ARE ESTABLISHED | | | | | | |
| T | OLERANCES UNLESS | OTHERWISE SPECIF | FIED | | | |
| DIMENSION (inches) | TOLERANCE | DIMENSION (mm) | TOLERANCE | | | |
| 0-0.787 | ±0.006 | 0-20 | ±0.152 | | | |
| 0.788-1.181 | ±0.008 | 21-30 | ±0.203 | | | |
| 1.182-2.756 | ±0.012 | 31-70 | ±0.305 | | | |
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| 3.938-5.096 | ±0.020 | 101-150 | ±0.508 | | | |
| 5.097-7.874 | ±0.024 | 151-200 | ±0.610 | | | |
| 7.875-9.843 | 7.875-9.843 ±0.032 201-250 ±0.813 | | | | | |
| ANGULAR TOLERANCE ± 2° | | | | | | |
| DDODDIETADY AND CONFIDENTIAL | | | | | | |

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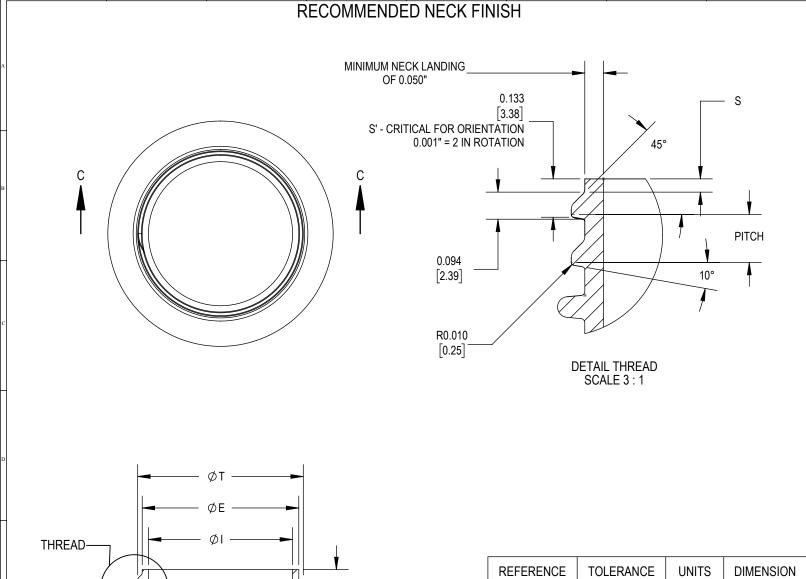
45-400 CT CLOSURE RS (Ribbed Side - Smooth Top)

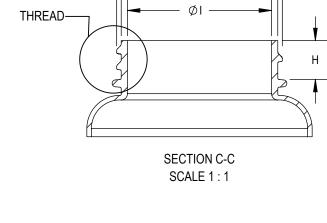
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DRAWING NUMBER CQA - 10301

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|---|------------|------|----------|--------------|---------------------------|----------|-----|
| PROPRIETARY AND CONFIDENTIAL | DRAWN BY. | JDM | 6/3/2016 | | POLYPROP | TLEINE | |
| THIS DRAWING IS PROTECTED BY COPYRIGHT AND CONTAINS INFORMATION PROPRIETARY TO MOLD RITE, WEATHERCHEM AND STULL TECHNOLOGIES. | ENG APPR. | JDM | 5/5/2017 | MODEL NUMBER | ^{tt} PM 10297 45 | 5-400 CT | |
| ANY REPRODUCTION, DISCLOSURE, OR USE OF ITS CONTENTS OR ANY PART THEREOF IS EXPRESSLY PROHIBITED EXCEPT AS MOLD-RITE. WEATHERCHEM | OA ADDD | ACP | 5/5/2017 | SCALE | SHEET SIZE | SHEET | |
| AND STULL TECHNOLOGIES OTHERWISE MAY AGREE IN WRITING | QA APPR. | Aoi | 0/0/2017 | 1:1 | 8 .5 X 11 | 2 of 3 | |
| 3 | | | - | | - | | - 0 |





| REFERENCE | TOLERANCE | UNITS | DIMENSION |
|-----------|----------------|---------|---------------|
| Е | ± 0.017 [0.43] | in [mm] | 1.631 [41.43] |
| Т | ± 0.017 [0.43] | in [mm] | 1.725 [43.82] |
| I | MINIMUM | in [mm] | 1.525 [38.74] |
| S | ± 0.015 [0.38] | in [mm] | 0.046 [1.17] |
| Н | ± 0.015 [0.38] | in [mm] | 0.415 [10.54] |
| TPI | | | 6 |
| PITCH | | in [mm] | 0.167 [4.24] |

NOTE: THE NOMINAL ORIENTATION ILLUSTRATED IS BASED ON NOMINAL DIMENSIONS OF BOTH THE CLOSURE AND THE RECOMMENDED NECK FINISH. FOR EXACT ORIENTATION EACH BOTTLE SHOULD BE EVALUATED ON A CASE BY CASE BASIS.

THE CLOSURE DIMENSIONS THE CLOSURE DIMENSIONS
DEPICTED ARE THOSE WHICH HAVE GENERALLY BEEN
FOUND TO BE FUNCTIONAL BASED ON INDUSTRY
EXPERIENCE BECAUSE OF VARIABILITY IN GLASS AND
PLASTIC CONTAINER FINISHES, EACH Y LING LASS AND
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DRAWING TYPE: CUSTOMER

DIMENSIONS ENCLOSED IN () INDICATE REFERENCE DIMENSIONS AND NO TOLERANCE LIMITS ARE ESTABLISHED

| TOLERANCES UNLESS OTHERWISE SPECIFIED | | | | | | | | |
|---------------------------------------|------------------------|----------------|-----------|--|--|--|--|--|
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| 7.875-9.843 | ±0.032 | 201-250 | ±0.813 | | | | | |
| | ANGULAR TOLERANCE + 2° | | | | | | | |

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CQA - 10301

45-400 CT CLOSURE RECOMMENDED NECK FINISH DRAWING NUMBER

MATERIAL 6/3/2016 JDM DRAWN BY. MODEL NUMBER: JDM 5/5/2017 ENG APPR.

SHEET SIZE REV.N/P ACP 5/5/2017 QA APPR. 1:2 8 .5 X 11 3 of 3 00.AB