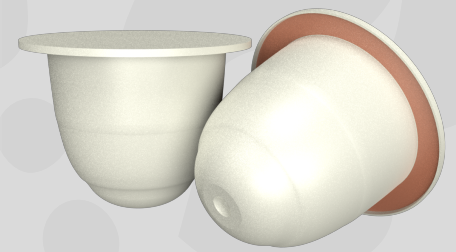




**N-POD**  
COMMERCIALY COMPOSTABLE



**Product:**

N-Pod Commercially compostable capsule: injection moulded industrial compostable biopolymer capsule with high oxygen barrier and cellulose ring

**Capsule Material**

- The material of our commercially compostable capsule is a biopolymer in the sense of the regulation EU 10/2021
- The basic material used is based on renewable raw materials (>96%)
- All monomers contained in our biopolymer have already been approved by the EFSA (European Food Safety) and are known.
- The material as well as the capsules made from it are free from aluminium
- All materials used are GMO and Pesticide-free
- California Prop 65 compliant

**Production**

- Country: Germany
- According to quality standard ISO 9001 (2015) and the hygiene regulation DIN EN15593/2008
- From renewable energies

**Capsule**

OTR	0.0008 cm <sup>3</sup> / capsule / day (0.21bar - @23°C, 50% RH)
WVTR	0.0031 g / capsule / day (@23°C, 85 %RH)
Height	
- Natural	28.2 ± 0.2 mm
- Colored	28.2 ± 0.3 mm
Outer Diameter	
- Natural	37.0 ± 0.2 mm
- Colored	37.0 ± 0.3 mm
Weight	2 ± 0.2 g
Wall thickness	0.5 ± 0.1 mm
Volume	approx. 13.4 cm <sup>3</sup>
Inner surface of the capsule body	approx. 22.2cm <sup>2</sup>

## Capsule & Ring Colors

### Capsule Colors (ring white)

- bone/natural
- dark green
- light green
- bio green
- brown

### Ring Colors (capsule white)

- black
- white
- grey slate
- brown
- dark blue
- light blue
- dark green
- light green
- red
- orange
- yellow
- purple
- dark red cherry
- purple raspberry

## Storage

- Unfilled: storable for up to 36 months
  - Relative humidity of up to 60%
  - Temperature range: +5 °C to +35° C
- Filled: shelf life of 24 months if using the recommended sealing paper and ensuring a hermetic sealing

## Logistics

- Packaging unit: 40,000 pieces as bulk goods in cardboard box with a protective PE bag
- Pallet: Euro pallet: 120x80cm 1 parking space corresponds to 2 cardboard boxes with 2 pallets on top of each other
- Total weight per storage space approx. 210 kg
- During transportation Max. allowable temperature peek -10°C to 65°C

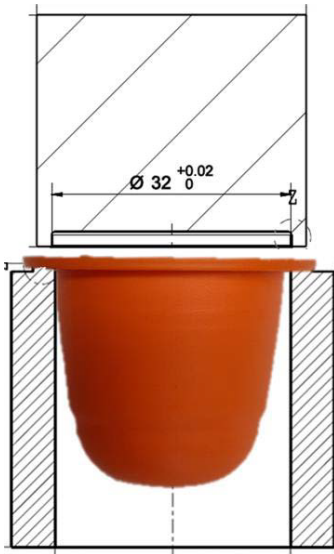
## Food Contact

- Global and Specific Migration Analysis made in accordance with EU 10/2011
  - THF Tetrahydrofuran CAS 109-99-9 Free
  - 1,4-Butandiol CAS 110-63-4 Free
  - Vinylacetat Free
  - PFAS und PFOA Free
  - Pesticide Free
  - Bisphenol A Free
  - Heavy meatal Free
- FDA for US approved

## Environmental Certifications

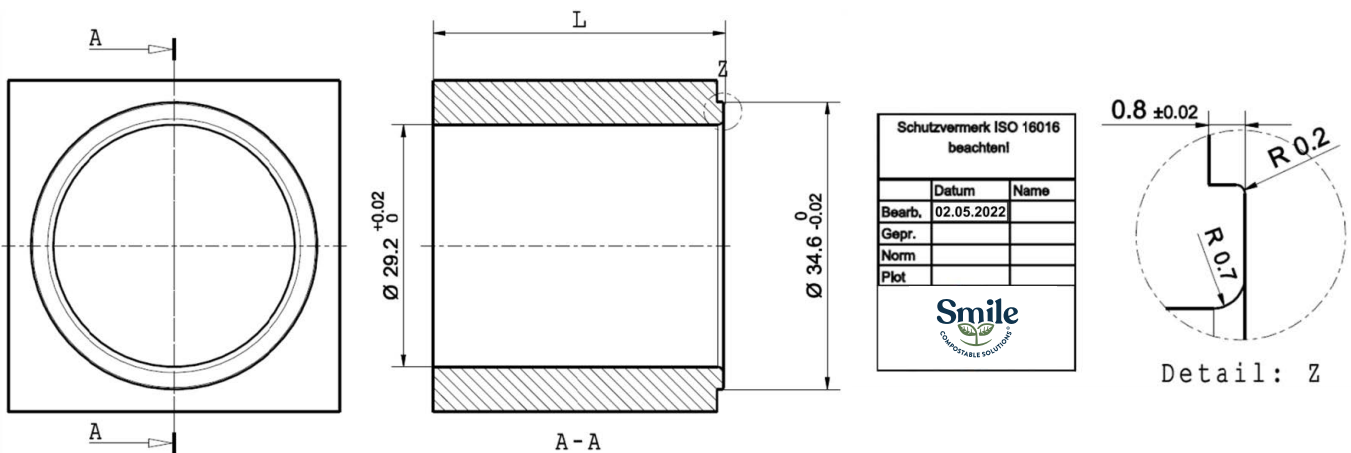


## FORMAT PLATES AND SEALING HEAD



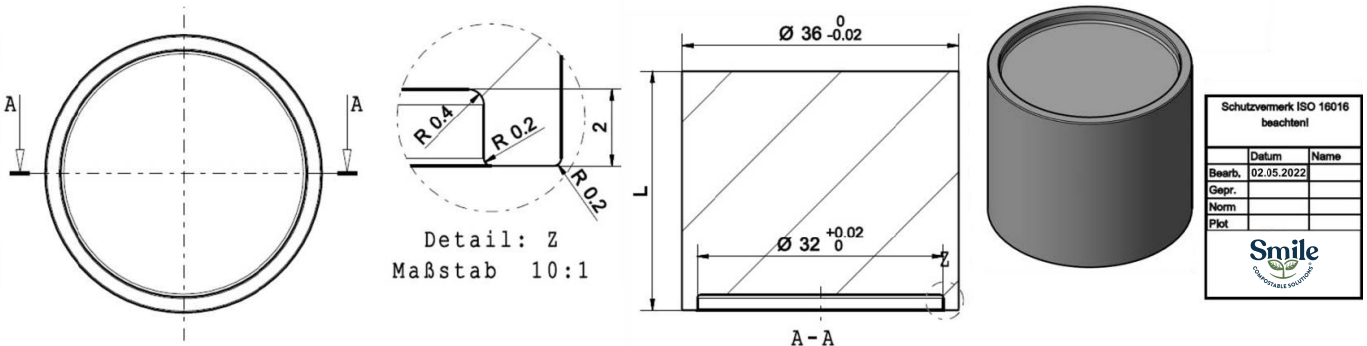
### Design of the capsule holder in the format plate

For inclusion of our capsules in the format plates we recommend the geometry according to following drawing. Dimensions given with the value "L" are determined by the machine manufacturer.



### Design of the sealing head

To seal the lid on our capsules we recommend the geometry according to the following drawing. Dimensions given with the value "L" are determined by the machine manufacturer.

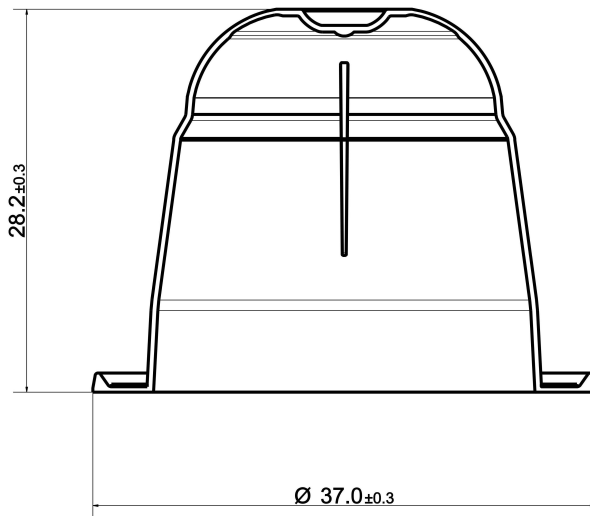


## Parameters for the lid sealing (lid paper: Jura-tech A+)

Attention, displayed values are laboratory values and must be adapted according to the respective filling machine.

Description	Value	Unit
Temperature (measured directly on the sealing surface)	220-240	[°C]
Force of the pneumatic cylinder	1250	[N]
Sealing duration	400-500	[ms]
Burst pressure	0.6	[bar]

After sealing, care must be taken that the internal pressure in the capsule created by the escaping gases from the coffee does not exceed 0.4 bar relative to the ambient pressure. The coffee has to be degassed sufficiently before filling.



Maximum wall thickness offset = 0,1 mm  
Stacking height ≈ 15 mm

Baugruppennr:		Projektnr.	
Baugruppenname:		Projektname	
Oberflächen n. DIN 1302		Maßstab	Dosname
Freimaßtoleranzen m. DIN 7168 fein		Format A 4	
0,5-6	6,0-30	120-120	120-400
±0,05	±0,1	±0,15	±0,2
		±0,3	±0,5
Schutzvermerk ISO 16016 beachten!		Positionsnr	
	Datum	Name	
	24.06.2022	Commercially Compostable Capsule	
	Gep.		
	Norm		
	Plot		
Zeichnungsnummer		Blatt	
Commercially Compostable Capsule			
Index	Änderung	Datum	Name



## Capsule Colors (ring white)



**Bone/Natural**  
Art. -Nr. 10210



**Brown**  
Art. -Nr. 10220



**Dark Green**  
Art. -Nr. 10260



**Light Green**  
Art. -Nr. 10270



**Bio Green**  
Art. -Nr. 10275

## Ring Colors (capsule white)



**Red**  
Art. -Nr. 10030



**Yellow**  
Art. -Nr. 10050



**Orange**  
Art. -Nr. 10040



**Dark Green**  
Art. -Nr. 10060



**Light Green**  
Art. -Nr. 10070



**Dark Blue**  
Art. -Nr. 10080



**Light Blue**  
Art. -Nr. 10090



**Purple**  
Art. -Nr. 10030



**Brown**  
Art. -Nr. 10020



**Grey Slate**  
Art. -Nr. 10102



**White**  
Art. -Nr. 10000



**Black**  
Art. -Nr. 10010



**Dark Red Cherry**  
Art. -Nr. 10100



**Purple Raspberry**  
Art. -Nr. 10101