Shenzhen Zhongchuang 3D Technology Co., Ltd

Technical Data Sheet (TDS)--OPPOSITE JAW MODEL Resin

Version: V1.0
Issue Date: 2023/3/15
Product: OPPOSITE JAW MODEL Resin

1. Company Infomation

Company Name	Shenzhen Zhongchuang 3D Technology Co., Ltd.
Company Address	Room 204, Building 1, Jiatai Industrial Park, No. 1 Industrial Zone, Tangwei Community, Fuhai Street, Bao'an District, Shenzhen
Brand Name	ZonMed
Email	info@zonmedtech.com
Website	www.zonmedtech.com

2. Product Information

Product Name	Repair-Model Resin
Product Model	PRS-R-19
Application Scope	Used for printing upper and lower opposing jaw models, suitable for basic diagnostic scenarios such as occlusal relationship analysis and denture arrangement.

3. Composition on Ingredients

Substance name	Conc. (%)	CAS.
(Octahydro-4,7-methano-1H-indenediyl)bis(methylene) bismethacrylate	20.00-45.00	43048-08-4
Diurethane dimethacrylate, mixture of isomers	20.00-35.00	72869-86-4
Poly(ethyleneglycol)dimethacrylate)	10.00-30.00	25852-47-5
Polyoxyethylene diacrylate	10.00-30.00	26570-48-9
1-Hydroxycyclohexyl phenyl ketone	2.00-5.00	947-19-3

4. Physical & Chemical Properties

Test Item	Standard Value	Test Method
Appearance	Beige	Visual Inspection
Viscosity (25℃)	2200-5300CPS	Rotational Viscometer
Density (25℃)	1.13 ~ 1.19g/cm^3	Density Meter
pH Value	6.5 ~ 7.5	pH Meter
Curing Mode	Light-curing	Operational Test
Curing Time	2.5s	Curing Machine

5. Performance Parameters (After Curing)

Parameter	Standard	Unit	Result
Shore	ASTM D2240	Shore D	72
Bending strength	ASTM D790	Mpa	75-85
Bending modulus	ASTM D790	Mpa	1950-2115
Notch impact strength	ASTM D256	Mpa	38-40.5
Breaking elongation rate	ASTM D638	%	7-10.2
Water absorption rate	ASTM D570	%	0.8-0.98
Hot deformation temperature	/	° C	<73

6. Usage Instructions

- Preparation: Clean and dry the dental treatment area before use to ensure no moisture and oil pollution.
- Print Pre-processing: Thoroughly shake the resin to eliminate air bubbles and pour it into a dental light-curing printer (385 – 405 nm). Add supports to the model, configure the appropriate print parameters, level the build platform, and start printing.
- Part Removal and Cleaning: Remove the printed part and ultrasonically clean it in 95% isopropyl alcohol for 2 – 3 minutes; dry thoroughly with a cool air stream.
- Curing: Place the part in a UV curing machine, ensuring exposure from multiple angles for a total duration of at least 3 – 5 minutes; standard: not feeling sticky when holding in hand.
- Grinding and Polishing: Remove supports, adjust occlusion and margins, and polish in stages to achieve a natural tooth-like luster.
- Seal the bottle tightly after each use to prevent liquid volatilization and contamination.

7. Storage & Transportation Conditions

- **Storage Temperature**: 5℃ - 25℃, sealed storage
- **Shelf Life**: 24 months (unopened and stored in standard conditions)
- **Transportation Requirements**: Avoid extrusion, collision, high temperature and sunlight exposure
- **Storage Notice**: Keep away from fire, heat sources and strong oxidants

8. Package Specification

OPPOSITE JAW MODEL: 1kg/bottle

9. Safety Description

- This product is dedicated to dental clinical use, forbidden for oral ingestion and external use on non-dental parts.
- Avoid contact with eyes. In case of accidental contact, rinse with plenty of clean water immediately.
- If allergic reaction occurs during use, stop using immediately and take corresponding medical measures.
- Waste materials after use shall be disposed of in accordance with medical waste management regulations.

10. Disclaimer

All data in this Technical Data Sheet is based on our current test results and industry standards, which is for reference only. The purchaser shall judge the applicability of the product independently according to the actual use environment. Our company shall not be liable for any accidental loss caused by improper operation and non-compliant use. We reserve the right to update and modify the TDS data without prior notice.