1. Description of the product

Tera Harz TC-85DAC is a CE Class Ⅱa material, developed for 3D printing of direct aligner. It is characterized by high elongation, and, high flexibility, and high precision. It is designed to be applicable to dental and industrial applications.

2. Properties of 3D printing resin

Properties	Unit	TC-85DAC	Remark
Color	-	Yellowish	
Density	g/cm^3 @ 25 ℃	1.061 ± 0.02	
Viscosity	cps @ 25 ℃	500 ± 100	Brookfield
Solid content	% @ 80 ℃ * 1h	≥ 98	

3. Properties of 3D printing product

Properties	Unit	TC-85DAC	Remark
Color	-	Clear	
Shore Hardness (D)	-	≥ 85	
Flexural Strength	MPa	≥ 50	ISO 20795-2
Flexural Modulus	MPa	≥ 1500	ISO 20795-2

4. Recommended curing conditions

4-1. Initial curing conditions

Provision	Unit	Condition	Remark
Light Source	-	UV LED	
Wave Length	nm	405	
Layer Thickness	㎛	100	
UV energy	mJ/cm^2	30.8	UV energy applied to 1 layer
LED Power	mW/cm^2	11	LED Power applied to 1 layer
Exposure time	sec	2.8	
Operation Temp	℃	5 ~ 35	

4-2. Post curing conditions

Provision	Unit	Condition	Remark
Light Source	-	UV LED	
Wave Length	nm	390 - 410	
Operation Temp	℃	5 ~ 35	
Curing time	min	30 X 30	Post cure each side, the front and back of the printed model
UV energy	mJ/cm^2	114000 ~ 120000	UV energy when curing 5min.
LED Power	mW/cm^2	380 ~ 420	

5. How to use

1) This product is sensitive to light and should be protected from exposure to sunlight and UV light when stored and used.

2) 3D printing resins should be stored and handled in black containers that can prevent exposure to UV light.

3) Since it requires a sufficient amount of energy to print the 3D printing parts with this product, it is necessary to periodically check the light intensity of the LED lamp.

4) It is recommended to keep the product in the temperature between 15 ℃ and 25 ℃ when handling it. If printing with the product at too low or high temperature, it may result in differences in mechanical properties.

6. Shelf life of product

- 12 months from the date of manufacture (stored in cool dark place at 15 ~ 25 ℃)
- Storage conditions: 15 ~ 25 ℃, shipment to be completed within 30 days of product release

7. Note

- The above conditions have been written after review by existing customers and our labs, and are recommended conditions for optimal mechanical properties.
- Even in the same 3D printing, the printing condition may need to be changed depending on the lamp & printing conditions of 3D printers, required mechanical properties and etc.
- Check the line conditions that satisfy the recommended curing conditions before use as the required mechanical properties may not be satisfied depending on the printing conditions even according to the above conditions.

- **The information in this document is based on experiments and practical experience. Please note that there are many factors that affect the mechanical properties and quality of the product. Therefore, it is necessary to thoroughly review the product before using it. This document has been written as a reference and we are not legally responsible for this data.**
- **For more information on the hazards and safety of the product, please check the MSDS (Material Safety Data Sheet). If you have any questions, please contact us.**
- **This technical data is subject to change without notice and it should be confirmed that this data is recent revision before use.**

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