

HIGH INTENSITY TRANSLUCENT CERAMICS

N-9000NS

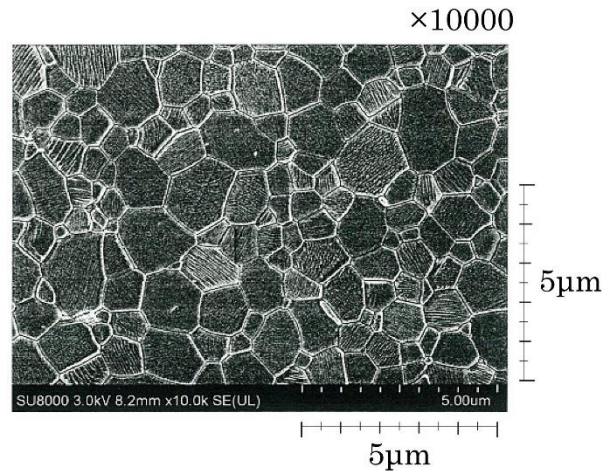
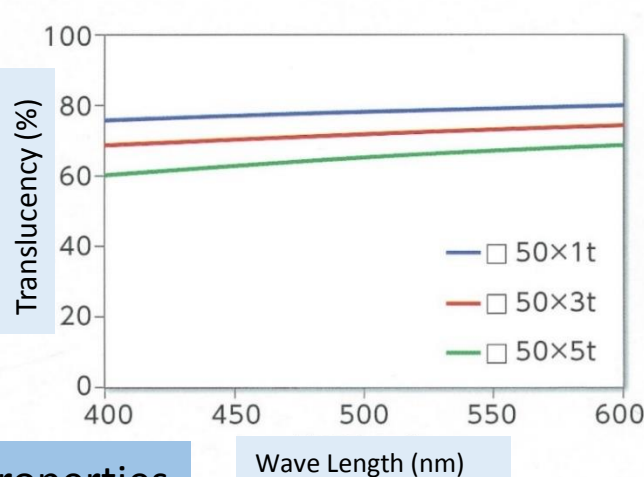
Nishimura's original translucent alumina ceramics is composed of very small ceramic crystal (0.2-2 μ m Ave.0.9 μ m).

As a unique point of this material (difference from a sapphire) is that it can be shaped in the variety of shapes.

This material is fit to the standards of the medical used high purity alumina ceramics. (ISO6474, ASTM F603)

As a below picture, the ceramic crystal is a small hexagon. Therefore the crystals berry drop is not usually happen.

	Total Light Transmittance (%)	Diffuse Transmittance (%)	Parallel Light Transmittance (%)
C illuminant	83.66	54.38	29.28



Properties

Evaluation Points	Unit	Nishimura No.	(Reference Value)		
		N-9000NS	ISO 6474 ¹⁾	ASTM F603 ¹⁾	
Bulk Density	g/cm ³	3.99	≥ 3.94	≥ 3.90	
Chemical Composition	Al ₂ O ₃	%	> 99.9	≥ 99.5	≥ 99.5
	MgO	%	< 0.05	≤ 0.3	---
	Etc.	%	< 0.05	---	---
	Total of SiO ₂ +CaO+Alkali Metal Oxide	%	---	≤ 0.1	---
	Total of SiO ₂ +Alkali Metal Oxide	%	---	---	≤ 0.1
Micro Structure	Average Crystal Size	μ m	0.95	≤ 4.5	≤ 7
	Standard Deviation	μ m	---	≤ 2.6	---
Bending Strength	MPa	822	---	≥ 400	
Elastic Modulus	GPa	406	---	≥ 380	

Pharmaceutical and Food Safety Bureau No. 1008001 Ministry of Health, Labor and Welfare
Drug and Foods Administration Dept., Medical Device Investigation Office (10/8/2008)