

TECHNICAL DATA SHEETS OF

SK3200

UV Lacquer for Optical Discs

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SK3200 UV Lacquer for optical discs

FEATURES:

SK3200 is a UV-curable acrylic-based lacquer for all optical media. This spin-coatable, fast cure product provides excellent resistance to high heat and humidity to ensure lifetime preservation of the information layer. Cured **SK3200** can accept screen print and other decoration techniques.

PROPERTIES:

Item	Properties	Notes
Liquid Appearance:	<i>Light yellow transparent</i>	visual
Solids	<i>100% non-volatile</i>	-
Viscosity:	<i>37 mPa·s</i>	cone/plate type viscometer @ 25°C
Surface tension:	<i>31 mN/m</i>	@ 23 °C
Specific gravity:	<i>1.1</i>	densimeter
Shrinkage on curing:	<i>10 %</i>	specific gravity measurement
Glass transition temp.:	<i>106 degC.</i>	dynamic viscoelastometer
Curing Wavelength	<i>250 – 420 nm</i>	-

TYPICAL PROCESS CONDITIONS : *for CD*

Condition	Value
<u>Spin Coat Application</u>	
Spin Rate:	2000 – 5000rpm
Spin Time:	0.5 – 3 sec
<u>UV Irradiation</u>	
UV Lamp:	High Pressure Mercury Lamp or Metal Halide Lamp
UV Dosage:	200 – 500 mJ / cm ²

Please Note: All information supplied is typical of what can be expected in general practical use. Finished properties may vary depending on your individual application. This data is not intended to be used for specification, but provided for typical values.

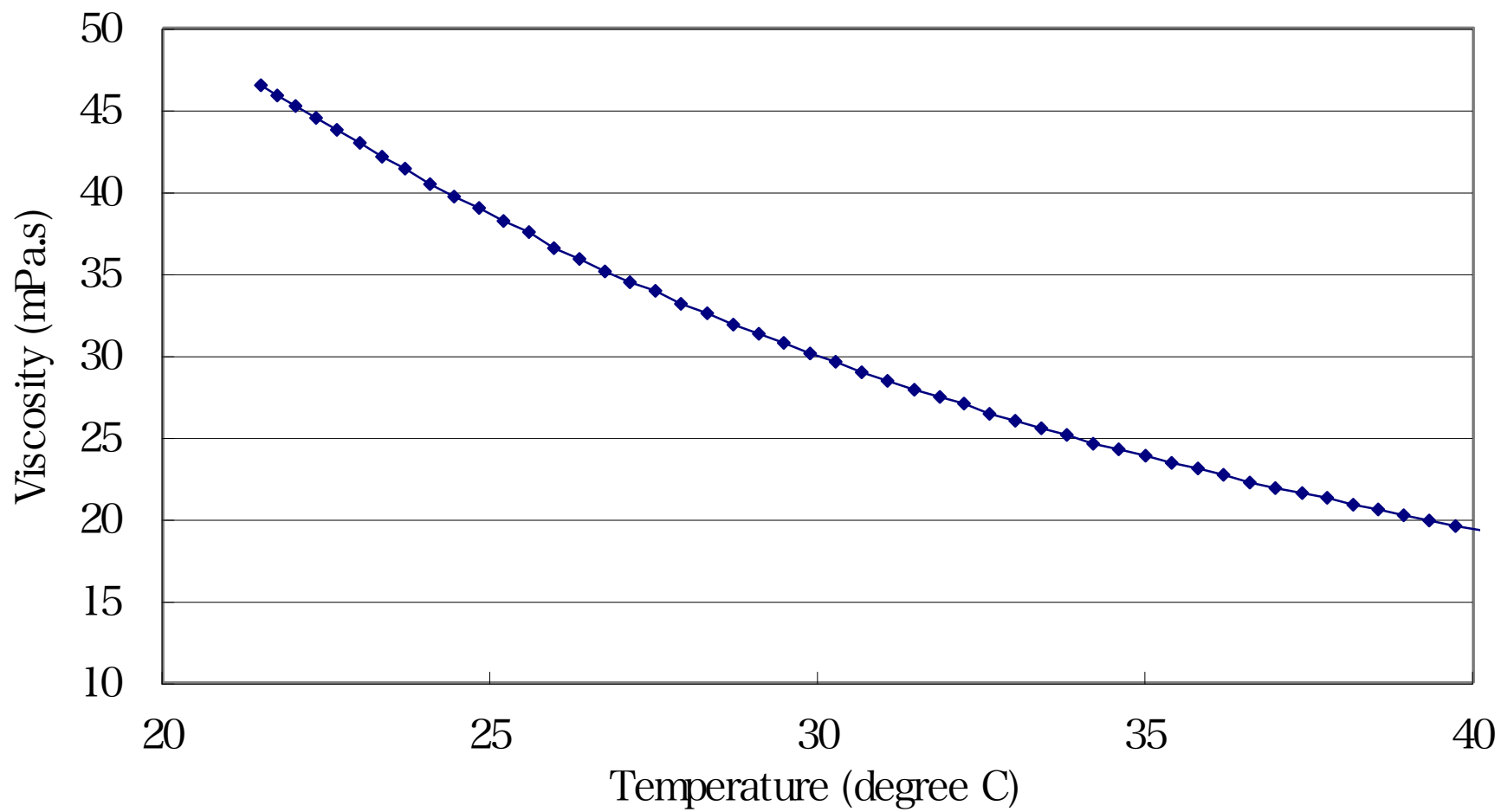


Fig. Viscosity- Temperature Curve of SK3200

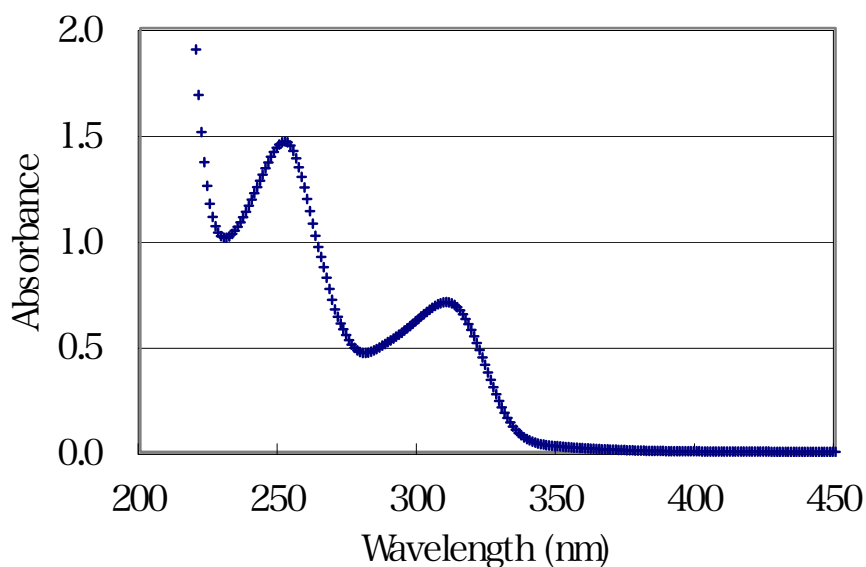


Fig.1 (a) Absorption spectrum of SK3200.

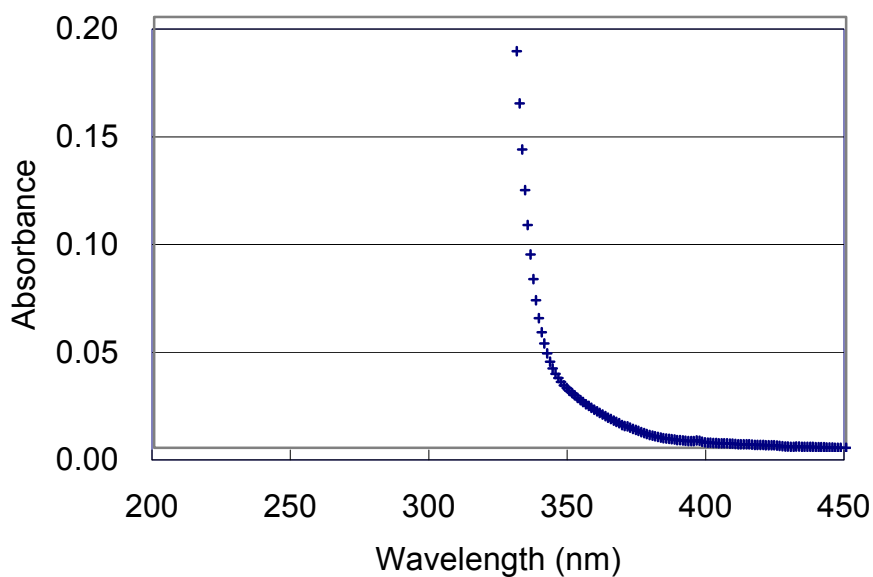


Fig.1 (b) Absorption spectrum of SK3200 (x10).

<comment>

Photoinitiators contained in SK3200 has absorption band between (ca.) 230-400nm, especially the absorption band around 350nm is important to generate the photoinitiator-cleaved radical.

Measurements:

solvent: ethanol

equipment: V-570 UV/VIS/NIR Spectrophotometer; JASCO

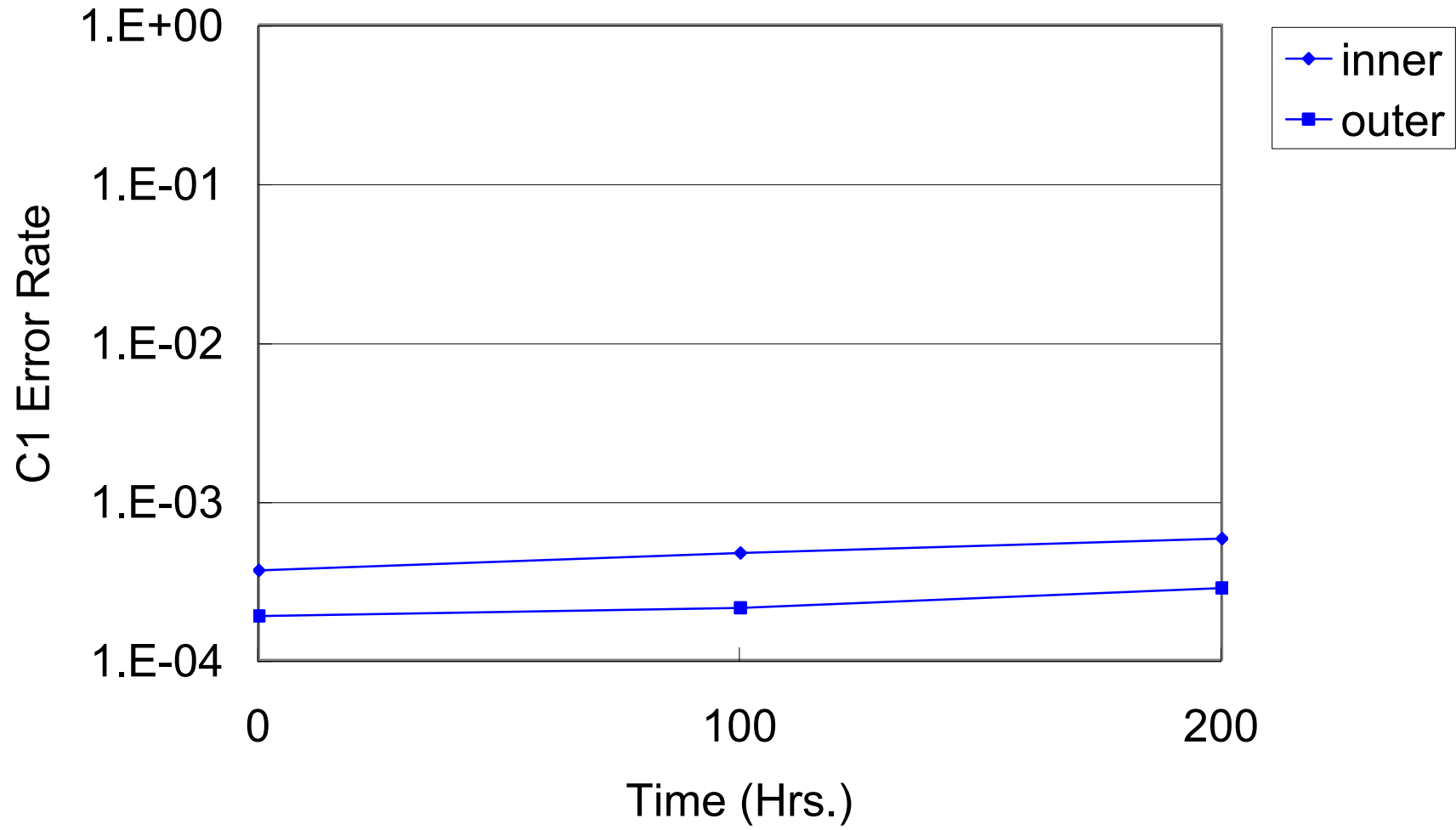


Fig. C1 Error Rate of SK3200 on CD (85degree C 95%RH)

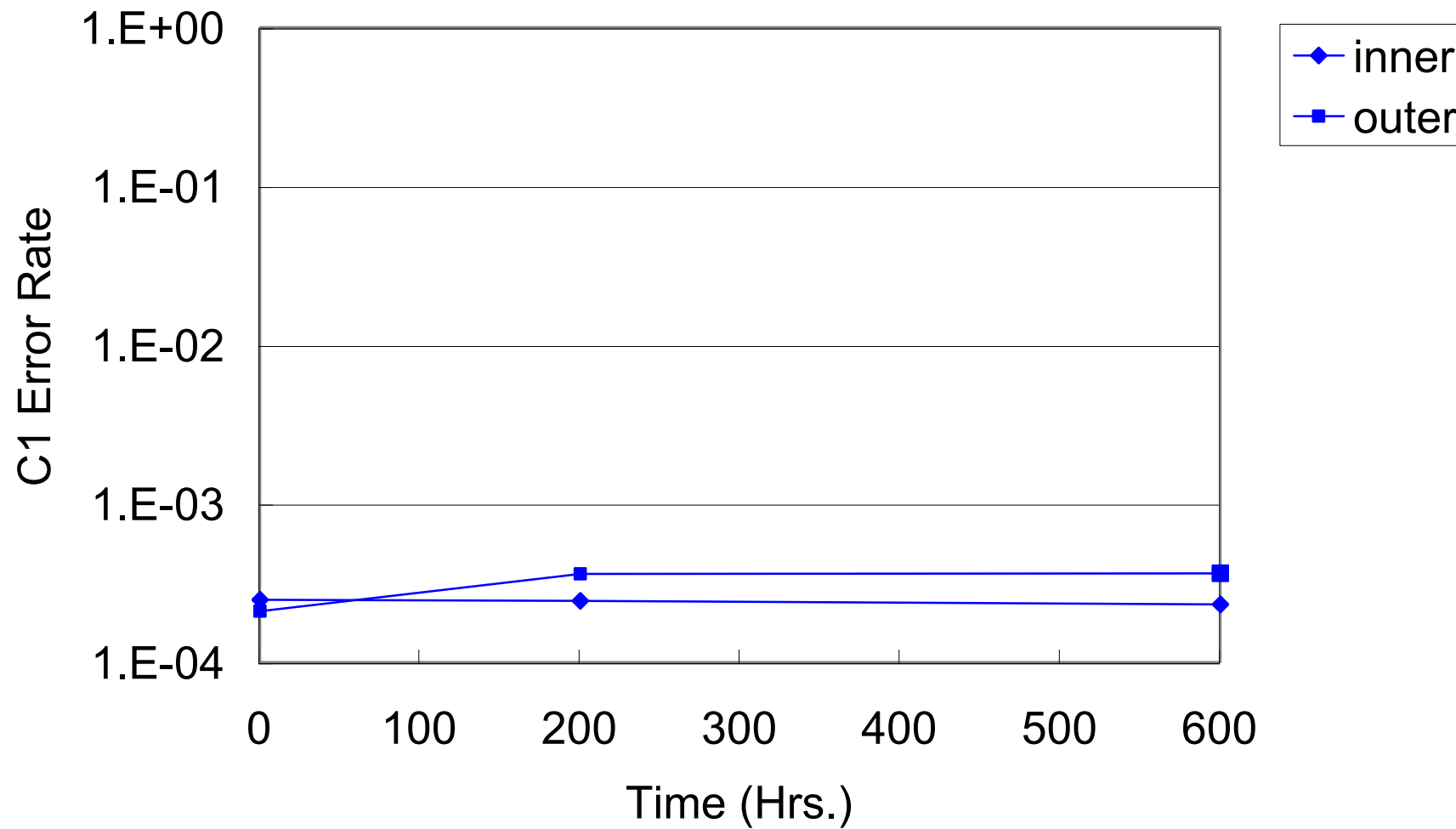


Fig. C1 Error Rate of SK3200 on CD-R (80degree C 85%RH)

<Experimental>

Lacquering:

	CD	CD-R
Lacquer	SK3200	SK3200
spattered layer	Al	Ag
substrate	SME	a customer
coated by	SCC	a customer
lacquer thickness (average)	8 micrometer	5 micrometer

Environmental Test

	CD	CD-R
aging conditions	85 degreeC 95%RH	80 degree C 85%RH

C1 Error Rate

	CD	CD-R
writing: equipment	-	CRW 4260tx; YAMAHA
writing speed	-	x4
reading: equipment	CD-ROM analyzer DR-3755; Kenwood TMI	
reading speed	x1	
reading region (inner)	0min 30sec - 3min 30sec	
reading region (outer)	50min 0sec - 53min 0sec	