Hanita Coatings

TEKRA

DURA-Go

HP INDIGO® OPTIMIZED SUBSTRATES

I05A10

PRODUCT DATA

10 mil (250 micron) FR65 Polycarbonate

Dura-Go™ substrates are HP Indigo-licensed and were jointly developed by Hanita Coatings, Tekra Corporation and HP Indigo to create the premier product line of film substrates for HP Indigo digital presses.

Our proprietary primer coatings provide a number of benefits, including:

- Reliable, superior ink adhesion
- High definition of colors
- Long shelf life, guaranteed to print for one year after purchase when stored at less than 72F and less than 50% relative humidity.

The Dura-Go coating is highly resistant to weathering/degradation:

		Units	Test Conditions
Weatherability	2	Months	Outdoor
	24	Months	Indoor
Dish Washer	pass	N/A	1.5 hours, top cycle
Water and	200	Hours	65% RH at 80F
Chemical Resistance	200	Hours	Distilled Water at 90F
	2	Hours	Water + 2% detergent at 150F
	24	Hours	Ethanol at 75F

I05A10 a clear, thin-gauge polycarbonate film with a velvet finish on one side and a matt finish on the other, and a UL94 V-0 listing to meet the stringent requirements in a wide range of electrical, electronic and transportation applications.

I05A10 Data Sheet Page 2 - Base Film

Property	ASTM Test Method	Units (USCS)	Value	ISO Test Method	Units (SI)	Value
Mechanical						
Tensile Strength @ Yield	ASTM D882	psi	10000	ISO 527	MPa	70
Ultimate	ASTM D882	psi	8700	ISO 527	MPa	60
Tensile Modulus	ASTM D882	psi	319000	ISO 527	MPa	2200
Tensile Elongation at Break	ASTM D882	%	100-160	ISO 527	%	100-155
Gardner Impact Strength at 0.03" (0.75mm)	ASTM D3029	ft-lb	21	ISO 6603-1	J	28
Tear Strength						
Initiation	ASTM D1004	lb/mil	1.4-1.8		kN/m	298
Propogation	ASTM D1922	g/mil	30-55		kN/m	16
Puncture Resistance (Dynatup)	ASTM D3763	ft-lb	9		J	12
Fold Endurance (MIT)						
0.010" (0.25 mm)	ASTM D2176-69	double folds	60			
0.020" (0.50 mm)	ASTM D2176-69	double folds	20			

Thermal	ASTM Test Method	Units (USCS)	Value	ISO Test Method	Units (SI)	Value
Coefficient of Thermal Conductivity	ASTM D5470	Btu/hr/ft2/°F/in	1.35		W/m°K	0.2
Coefficient of Thermal Expansion	ASTM E831	(x10-5/°F)	3.2	ISO 11359	(x10-5/°C)	5.8
Specific Heat @40°F (4°C)	ASTM E1269	Btu/lb/°F	0.3		KJ/Kg-°C	1.25
Glass Transition Temperature	ASTM D3417 / D3418	°F	307	ISO 11357	°C	153
Vicat Softening Temperature, B	ASTM 1525-00	°F	347			175
Heat Deflection Temp. by TMA at 1.8 Mpa	modified	°F	290	ISO 75 Modified	°C	145
Shrinkage at 302°F (150°C)	ASTM D1204	%	0.02		%	0.02
Brittleness Temperature	ASTM D746	°F	-211		°C	-135

Physical	ASTM Test Method	Units (USCS)	Value	ISO Test Method	Units (SI)	Value
Density	ASTM D792	slug/ft3	2.6	ISO 1183	kg/m3	1344
Water Absorption, 24 hrs.	ASTM D570	% change	0.28	ISO 62	% change	0.28
Surface Energy(1st surface/ 2nd surface)	ASTM D5946-01	-	34/36			
Surface Tension(1st surface/ 2nd surface)	Dyne Pens	Dyne	>44/>44			

Optical	ASTM Test Method	Units (USCS)	Value	ISO Test Method	Units (SI)	Value
Refractive Index @77°F (25°C)	ASTM D542A		1.6			
Light Transmission	ASTM D1003	-	86.1			
Yellowness Index	ASTM D1925	%	1.3			
Haze	ASTM D1003	%	97			
Gloss over Flat Black min/max @ 60°	ASTM D523-60	%	7	ISO 2813		10

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UL Flammability Rating / Performance Levels

Thickness	Rating	HWI	HAI
>= 0.010" (0.250mm) and < 0.015" (0.375mm)	UL94V-0	1	0
> 0.015" (0.375mm)	UL94V-0	0	0
CTI: 3			
File Number	E61257		

Manufacturing Specifications

Nominal Gauge Ranges	Min./Max Limit of Nominal
0.010 - 0.020” (0.250 - 0.500mm)	-/+ 5%

Property	ASTM Test Method	Units (USCS)	Value	ISO Test Method	Units (SI)	Value
Electrical						
Dielectric Strength in oil, short time @ 72°F (23°C), 10 mils (0.25mm	ASTM D 149-97a Method A	kV/mil	1.5	IEC 60243	kV/mm	59
Dielectric Constant						
@ 60 Hz	ASTM D150	-	2.9	IEC 60250	-	2.9
@1,000,000 Hz	ASTM D150	-	2.8	IEC 60250	-	2.8
Dissipation Factor						
@ 60 Hz	ASTM D150	-	0.0026	IEC 60250	-	0.0026
@1,000,000 Hz	ASTM D150	-	0.0117	IEC 60250	-	0.0117
Volume Resistivity	ASTM D257	Ω-cm	1.00E+17	IEC 60093	Ω-cm	1.00E+17
Surface Resistivity	ASTM D257	Ω-square	1.00E+16	IEC 60093	Ω-square	1.00E+16
Arc Resistance, Tungsten Electrodes	ASTM D495	s	64			