Date:	7 April 2003
Subject:	**Kodak S390R Film for Dolev Family**

Number of pages sent (including this one): 3

1. **Summary**:

   The **Kodak S390R Film** was tested at CIL. The primary objective of the examination was to determine the feasibility of using **Kodak S390R Film** for Turbo Screening on Dolev 800V², Dolev 800V³, Dolev 4Press V.

2. **Test Objectives:**

   Determine:

   2.1 Film linearity in a variety of screen rulings and imagesetter resolutions.

   2.2 Practical minimum printable dot area in Highlight.

   2.3 Possibility of using HDP and FM (Creo FM screen) applications.

   2.4 Verify that loading/unloading is problem free.

3. **Conclusions:**

   3.1 **Kodak S390R Film** is applicable for Turbo Screening at resolutions 60 - 140 dpm and screen rulings 85 - 250 lpi.

   3.2 **Kodak S390R Film** is acceptable for FM applications at plotter resolutions 60-100 dpm.

   3.3 Kodak S390R Film is acceptable for HDP applications up to 300 lpi. **Not Acceptable for 600 lpi**.

   3.4 **Kodak S390R Film** showed no scratches in the loading/unloading test therefore it is acceptable to use with Dolev imagesetters.

4. **Results:**

Screen Ruling / Resolution	85 /60	150 /80	175 /100	200 /120	HDP 300/120	HDP 600/140	FM Res100

Dolev 800V²

Laser Intensity Nominal	**Dsolid**						
	5.4	**6.0**	**5.4**	**5.7**	**5.4**	**5.1**	**5.0**
Min printable dot area	1%	1%	2%	1%	1%	**10%**	1%
Nominal shift in	2%	3%	2%	3%	4%	1%	1%

50% dot area							

Dolev 800V^3

Laser Intensity Nominal	**Dsolid**						
	5.3	**5.2**	**5.1**	**5.4**	**5.3**	**5.1**	**5.2**
Min printable dot area	1%	1%	2%	2%	3%	**9%**	1%
Nominal shift in 50% dot area	-2%	-1%	-3%	-2%	1%	7%	10%

Shift between film dot area and file value by 50% was acceptable.

-3÷3% in normal range of screen rulings 85-200 lpi and imagesetter resolutions of 60-120 dpm.

1÷4% in HDP screen rulings 250-300 lpi only, at imagesetter resolution up to 140 dpm.

1÷10% in FM screens at resolution 60-100 dpm.

1. **The minimum printable dot area on the film was acceptable**.

   1÷2% for conventional applications.

   1% for FM application.

   1÷3% for HDP application up to 300 lpi. **Not acceptable for 600 lpi**.

2. **Results of the film loading and unloading**

   Film was loaded and unloaded to cassettes, accumulating cassettes and an in-line processor.

   Film was loaded and unloaded at maximum and minimum lengths.

<u>Test Parameters And Conditions</u>:

Film	**Kodak S390R Film**
Imagesetter	Dolev 800V², Dolev 800V^3, Dolev 4PressV
Processors	On-line processor Hope EG900 (Echo Graphic) Off-line processor 37C MK2 (Du Pont)
Processing Chemicals:	Developer: Kodak RA2000 (1:2), Fixer: Kodak RA 3000 (1:3), Temp: 35C, Time: 30 sec.
Measuring Device:	Macbeth TD904
Test Target:	Creo standard file "Film Test Strip" with file value from 0% -

100%.

Appendix A

Dolev 800V²

	Res	Screen Set	D solid	50% dot area		Print Dot			Laser Value
				Film	Range	Min	Range	Max	
Normal Density	60	Vc85r6c	5.4	52%	±2	1%	1-2%	99%	2300
	80	Vc150r8c	6.0	53%	±3	1%	1-2%	98%	1700
	100	Vc175r10c	5.4	52%	±4	2%	1-2%	98%	1200
	120	Vc200r12c	5.7	53%	±5	1%	1-2%	98%	1000
	140	Vs600r14c	5.1	51%	±25	**10%**	3-5%	**91%**	1000
	100	TurboFM2540_20	5.0	51%	±15	1%	3-5%	98%	1200
	120	Vs300r12c	5.4	54%	±15	1%	3-5%	96%	1000

Dolev 800V³

	Res	Screen Set	D solid	50% dot area		Print Dot			Laser Value
				Film	Range	Min	Range	Max	
Normal Density	60	Vc85r6c	5.3	48%	±2	1%	1-2%	98%	5500
	80	Vc150r8c	5.2	49%	±3	1%	1-2%	98%	3700
	100	Vc175r10c	5.1	47%	±4	2%	1-2%	98%	2600
	120	Vc200r12c	5.4	48%	±5	2%	1-2%	98%	1800
	140	Vs600r14c	5.1	57%	±25	**9%**	3-5%	**89%**	1450
	100	TurboFM2540_20	5.2	60%	±15	1%	3-5%	98%	2600
	120	Vs300r12c	5.3	51%	±15	3%	3-5%	98%	1800