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Memo

Date:	4 May 2003
Subject:	**Konica VRM-100E Film for Dolev Family**

Number of pages sent (including this one): 3

1. **Summary**:

   The **Konica VRM-100E Film** was tested at CIL. The primary objective of the examination was to determine the feasibility of using **Konica VRM-100E 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 **Konica VRM-100E Film** is applicable for Turbo Screening at resolutions 60 - 140 dpm and screen rulings 85 - 250 lpi.

   3.2 **Konica VRM-100E Film** is acceptable for FM applications at plotter resolutions 60-100 dpm.

   3.3 Konica VRM-100E Film is acceptable for HDP applications up to 300 lpi. **Not Acceptable for 600 lpi**.

   3.4 **Konica VRM-100E Film** showed scratches in the loading/unloading test on Dolev 4Press V, and showed no scratches on Dolev 800V^2 therefore it is **not acceptable** to use with Dolev 4Press imagesetters, and acceptable to use with Dolev 800 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**						
	5.09	**5.21**	**5.18**	**5.17**	**5.01**	**5.29**	**5.19**
Min printable dot area	2%	1%	2%	2%	1%	***13%**	1%
Nominal shift in 50% dot area	-2%	-1%	1%	-1%	-2%	***0%**	4%

* Although the shown results in HDP 600 lpi at 140 imagesetter resolution are acceptable, it is not acceptable due to a large shift at the max. dot area. For further detailed results see appendix A.

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

-2÷1% in normal range of screen rulings 85-200 lpi and imagesetter resolutions of 60-120 dpm.

-2% in HDP screen rulings 250-300 lpi only, at imagesetter resolution up to 140 dpm.

4% 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% 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.

   Dolev 800 V^2 - Scratches did not appear on the exposed and unexposed area.

   4Press V - Scratches appear on the exposed and unexposed area.

Test Parameters And Conditions:

Film	**Konica VRM-100E Film**
Imagesetter	Dolev 800V², Dolev 4PressV
Processors	On-line processor Hope EG900 (Echo Graphic) Off-line processor 37C MK2 (Du Pont)
Processing Chemicals:	Developer: Konica 860* (1:2), Fixer: Konica 841F (1:4), Hardner: Konica 842H (1:40), 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	5.60	48%	±2	1%	1-2%	99%	5000
	80	Vc150r8c	5.30	52%	±3	1%	1-2%	99%	3300
	100	Vc175r10c	5.50	48%	±4	1%	1-2%	99%	1500
	120	Vc200r12c	5.80	49%	±5	1%	1-2%	99%	1300
	140	Vs600r14c	5.10	43%	±25	5%	3-5%	96%	900
	100	TurboFM2 540_20	5.40	61%	±15	1%	3-5%	99%	1500
	120	Vs300r12c	5.20	51%	±15	1%	3-5%	99%	1300

Dolev 800V³

	Res	Screen Set	D solid	50% dot area		Print Dot			Laser Value
				Film	Range	Min	Range	Max	
Normal Density	60	Vc85r6c	5.60	48%	±2	1%	1-2%	99%	5300
	80	Vc150r8c	5.30	49%	±3	1%	1-2%	99%	3700
	100	Vc175r10c	4.94	49%	±4	1%	1-2%	99%	2000
	120	Vc200r12c	5.2	51%	±5	1%	1-2%	99%	1600
	140	Vs600r14c	4.32	46%	±25	4%	3-5%	95%	800
	100	TurboFM2 540_20	4.96	58%	±15	1%	3-5%	99%	2000
	120	Vs300r12c	5.20	52%	±15	1%	3-5%	98%	1600