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ศูนย์วิทยทรัพยากร
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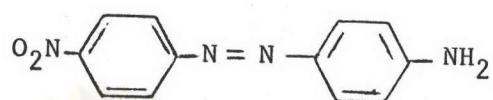
APPENDIX

ศูนย์วิทยทรัพยากร จุฬาลงกรณ์มหาวิทยาลัย

Appendix 1 Structures of disperse dyes

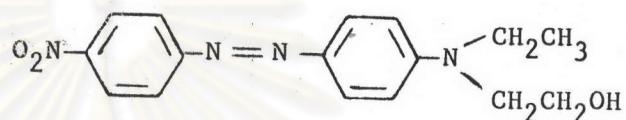
C.I. Disperse Orange 3

(K. Fast Orange GR)



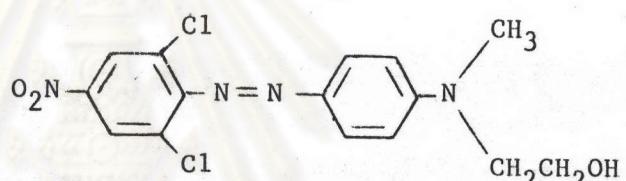
C.I. Disperse Red 1

(K. Fst Scarlet B)



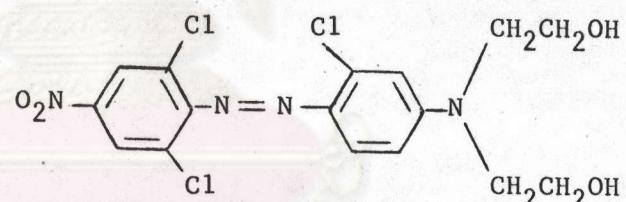
C.I. Disperse Orange 5

(K. Fast Brown R)



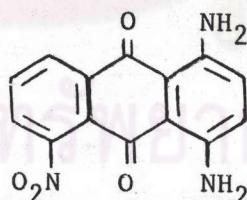
C.I. Disperse Brown 1

(K. Polyester Brown GR-SE)



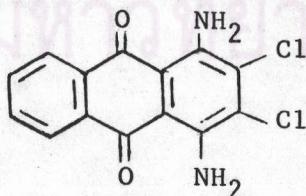
C.I. Disperse Violet 8

(Palanil Violet 3B)



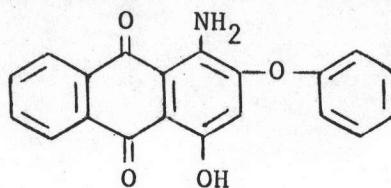
C.I. Disperse Violet 28

(Resolin Violet RL 200 %)



C.I. Disperse Red 60

(P. Red BFY 200 %)



Appendix 2 The conditions of light fastness experiment

METEOROLOGICAL OBSERVATION AT BANGKOK METROPOLIS

| TEMPERATURE (C) | | | RELATIVE HUMIDITY (%) | | |
|-----------------|------|------|-----------------------|------|------|
| MAX. | MIN. | MEAN | MAX. | MIN. | MEAN |
| 33.5 | 24.5 | 28.9 | 92.0 | 48.0 | 72.1 |
| 33.7 | 26.6 | 29.5 | 86.0 | 49.0 | 72.0 |
| 33.3 | 25.1 | 29.3 | 89.0 | 52.0 | 72.9 |
| 32.4 | 23.6 | 26.9 | 96.0 | 49.0 | 80.4 |
| 33.1 | 23.9 | 27.3 | 92.0 | 50.0 | 75.9 |
| 33.7 | 23.3 | 27.7 | 90.0 | 48.0 | 70.9 |
| 35.1 | 24.6 | 29.5 | 87.0 | 39.0 | 64.9 |
| 35.0 | 24.4 | 29.9 | 83.0 | 38.0 | 59.2 |
| 33.2 | 26.0 | 29.2 | 84.0 | 54.0 | 69.9 |
| 33.2 | 27.3 | 29.6 | 84.0 | 50.0 | 70.6 |
| 33.6 | 27.5 | 29.9 | 81.0 | 50.0 | 69.5 |
| 33.6 | 26.6 | 29.6 | 87.0 | 50.0 | 70.9 |
| 34.2 | 26.1 | 29.7 | 88.0 | 44.0 | 69.2 |
| 35.2 | 25.2 | 30.1 | 86.0 | 38.0 | 64.3 |
| 36.0 | 26.5 | 30.6 | 87.0 | 22.0 | 63.7 |
| 34.3 | 27.3 | 30.2 | 84.0 | 52.0 | 70.5 |
| 34.4 | 27.3 | 30.4 | 85.0 | 53.0 | 70.0 |
| 34.6 | 26.2 | 30.1 | 91.0 | 52.0 | 71.4 |
| 35.8 | 26.8 | 30.5 | 87.0 | 34.0 | 67.8 |
| 34.2 | 26.1 | 30.0 | 84.0 | 43.0 | 68.0 |

CLIMATOLOGY DIVISION
 METEOROLOGICAL DEPARTMENT
 MINISTRY OF TRANSPORT AND COMMUNICATIONS
 APRIL 10, 1990

Appendix 3 The general information about polypropylene
tape yarn as weaving tape

| ITEMS | VALUES |
|---|-------------------------------------|
| 1. Width | 1.5-4 mm (usually 2-5) |
| 2. Thickness | 25-60 μm (usually 52) |
| 3. Linear density | 500-1100 denier |
| 4. Tenacity | 5.0 g.p.d. + |
| 5. Extension at break | 10-30 % |
| 6. Softening point (50 % loss in tenacity) | 150 $^{\circ}\text{C}$ |
| 7. Shrinkage in free air for 4 min at 130 $^{\circ}\text{C}$ | Down to 3 % |
| 8. Elastic recovery | Very Good |
| 9. Moisture uptake | 200 |



VITA

Mr. Pornchai Chruakanchana was born on July 20, 1964 in Bangkok. He received his Bachelor's Degree of Science of Chemistry from Faculty of Science, Chulalongkorn University in 1986. Since 1986, he has been a graduate studying Polymer Science in Chulalongkorn University.

ศูนย์วิทยทรัพยากร
จุฬาลงกรณ์มหาวิทยาลัย