

| COLOUR FASTNESS VALUES - AATCC Standard |            |                             |         |                       |     |                      |     |     |     |     |      |                          |     |     |     |     |     |                       |     |     |     |     |     |                   |          |                          |      | ARTICLE: KIRA |     |     |     |     |     |
|---|------------|-----------------------------|---------|-----------------------|-----|----------------------|-----|-----|-----|-----|------|--------------------------|-----|-----|-----|-----|-----|-----------------------|-----|-----|-----|-----|-----|-------------------|----------|--------------------------|------|---------------|-----|-----|-----|-----|-----|
| COLOUR                                  |            | CHLORINATED WATER AATCC 162 |         | LIGHT AATCC 16-20 AFU |     | WATER 38°C AATCC 107 |     |     |     |     |      | SEA WATER 38°C AATCC 106 |     |     |     |     |     | PERSPIRATION AATCC 15 |     |     |     |     |     | CROCKING AATCC 09 |          | WASHING 49°C AATCC 61-2A |      |               |     |     |     |     |     |
|   |            | C.C.                        | C.C.    | C.C.                  | AC  | CO                   | PA  | PL  | PC  | WO  | C.C. | AC                       | CO  | PA  | PL  | PC  | WO  | C.C.                  | AC  | CO  | PA  | PL  | PC  | WO                | S.CO DRY | S.CO WET                 | C.C. | AC            | CO  | PA  | PL  | PC  | WO  |
|   |            |                             |         |                       |     |                      |     |     |     |     |      |                          |     |     |     |     |     |                       |     |     |     |     |     |                   |          |                          |      |               |     |     |     |     |     |
| 0210                                    | white      | 3.5                         | 3       | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 5        | 5                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 0314                                    | red        | 4                           | 4.5     | 4                     | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 3.5  | 4.5                      | 4   | 4   | 4.5 | 4.5 | 4   | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4        | 3.5                      | 4.5  | 4.5           | 4   | 4   | 4.5 | 4.5 | 4.5 |
| 0419                                    | slate      | 4                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 0614                                    | burgundy   | 4.5                         | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4    | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4.5 | 4   | 4.5 | 4.5 |
| 0716                                    | turq       | 3.5                         | 2.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4    | 4.5                      | 4   | 4.5 | 4.5 | 4.5 | 4.5 | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 |     |
| 0811                                    | yellow     | 4                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4   | 4   | 4   | 4   | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 0916                                    | hawaii     | 3.5                         | 2.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 3.5 | 4.5 | 4.5 | 4.5 | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4.5  | 4.5           | 4.5 | 4   | 4   | 4.5 | 4.5 |
| 0919                                    | black      | 4.5                         | 4.5     | 4.5                   | 4   | 4                    | 4   | 4   | 4   | 4   | 4.5  | 4                        | 4   | 4   | 4   | 4   | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4   | 4   | 4.5 | 4.5 |
| 2813                                    | cherry     | 4                           | 3       | 4                     | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 3    | 4.5                      | 4   | 4   | 4   | 4   | 4   | 3                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4        | 3.5                      | 3.5  | 4.5           | 4   | 4.5 | 4.5 | 4.5 |     |
| 3316                                    | navy       | 4                           | 4.5     | 4.5                   | 4.5 | 4                    | 4   | 4   | 4   | 4   | 4.5  | 4                        | 4   | 4   | 4   | 4   | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4        | 4.5                      | 4.5  | 4.5           | 4   | 4   | 4.5 | 4.5 |     |
| 4916                                    | royal      | 4                           | 4       | 4.5                   | 4.5 | 4                    | 3.5 | 4   | 4.5 | 3.5 | 4    | 4                        | 3.5 | 3   | 3.5 | 4   | 3   | 4.5                   | 4.5 | 4.5 | 4   | 4.5 | 4.5 | 4                 | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4   | 3   | 4   | 4.5 |
| 5316                                    | oceano     | 3.5                         | 3.5     | 4.5                   | 4.5 | 4                    | 3.5 | 4   | 4.5 | 3.5 | 4    | 4.5                      | 4   | 3   | 4   | 4.5 | 3   | 4                     | 4.5 | 4.5 | 4   | 4   | 4.5 | 4                 | 4.5      | 3.5                      | 4    | 4.5           | 4   | 4   | 4.5 | 4.5 |     |
| 5416                                    | marine     | 4                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4   | 4   | 4.5 | 4.5 | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4        | 3.5                      | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 |     |
| 14021                                   | gold       | 4                           | 4.5     | 4.5                   | 4.5 | 3.5                  | 3.5 | 4.5 | 4.5 | 3.5 | 4.5  | 4.5                      | 3.5 | 3.5 | 4.5 | 4.5 | 3.5 | 4.5                   | 4.5 | 4   | 4   | 4.5 | 4.5 | 4                 | 4.5      | 3.5                      | 4.5  | 4.5           | 4   | 3.5 | 4.5 | 4.5 |     |
| 33725                                   | maroon     | 4                           | 4.5     | 4.5                   | 4   | 3.5                  | 3.5 | 4   | 4   | 3.5 | 4.5  | 4                        | 3.5 | 3.5 | 4   | 4   | 3.5 | 4.5                   | 4.5 | 3.5 | 3.5 | 4.5 | 4.5 | 3.5               | 4.5      | 3.5                      | 4.5  | 4             | 3.5 | 3.5 | 4   | 4   | 3.5 |
| 49427                                   | bottle     | 4                           | 4       | 4                     | 4.5 | 3.5                  | 3.5 | 4.5 | 4.5 | 3.5 | 4    | 4                        | 3.5 | 3.5 | 4   | 4   | 3.5 | 4.5                   | 4.5 | 3.5 | 3.5 | 4.5 | 4.5 | 3.5               | 4.5      | 3.5                      | 4    | 4             | 3.5 | 3   | 4   | 4   | 3   |
| 6216                                    | midnite    | 4                           | 4.5     | 4.5                   | 4   | 4                    | 3.5 | 4   | 4   | 3   | 4.5  | 4                        | 3.5 | 3   | 3.5 | 4   | 3   | 4.5                   | 4.5 | 4   | 4   | 4.5 | 4.5 | 4                 | 4        | 3.5                      | 4.5  | 4.5           | 4.5 | 2.5 | 4.5 | 4.5 | 3   |
| 9416                                    | ice blue   | 2.5                         | 2.5     | 4.5                   | 4.5 | 4                    | 4   | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4   | 4.5 | 4.5 | 4   | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4             | 4   | 4   | 4.5 | 4.5 | 4   |
| 1119                                    | charcoal   | 4                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 1219                                    | titanium   | 3.5                         | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4    | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 4217                                    | cadet blue | 4                           | 4       | 4.5                   | 4.5 | 4                    | 3   | 4.5 | 4.5 | 3.5 | 4    | 4.5                      | 3.5 | 3   | 4   | 4   | 3   | 4.5                   | 4.5 | 4.5 | 4   | 4.5 | 4.5 | 4                 | 4.5      | 4                        | 4.5  | 4             | 4.5 | 4.5 | 4   | 4.5 | 4   |
| ####                                    | emerald    | 4                           | 4       | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4   | 4.5 | 4.5 | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 3.5                      | 4.5  | 4.5           | 4   | 4   | 4.5 | 4.5 | 4.5 |
| 3817                                    | teal       | 3                           | 3       | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4   | 4    | 4.5                      | 4   | 4   | 4.5 | 4.5 | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4   | 4.5 | 4.5 | 4.5 | 4.5 |
| 3617                                    | sea green  | 3.5                         | 2.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4    | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| *1415                                   | magenta    | 4                           | 2.5     | 4                     | 4   | 3.5                  | 3   | 4   | 4   | 3   | 4    | 4                        | 3   | 3   | 4   | 4   | 3   | 4                     | 4.5 | 4   | 4   | 4.5 | 4.5 | 4                 | 4.5      | 4                        | 3.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 4515                                    | grape      | 4                           | 4.5     | 4.5                   | 4.5 | 4                    | 3.5 | 4   | 4.5 | 4   | 4.5  | 4                        | 4   | 3.5 | 4   | 4.5 | 3.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4   | 4.5 | 4.5 | 4.5 |
| 4117                                    | olive      | 4                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4   | 4.5 | 4.5 | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 0118                                    | brown      | 4.5                         | 4.5     | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4   | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4   | 4   | 4.5 | 4.5 | 4.5 |
| 3212                                    | papaya     | 4                           | 3.5     | 4.5                   | 4.5 | 4                    | 4   | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4   | 4   | 4   | 4   | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4    | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 0718                                    | nude       | 4                           | 4       | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4.5 | 4    | 4.5                      | 4.5 | 4   | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4.5 | 4   | 4.5 | 4.5 | 4.5 |
| 1610                                    | beige      | 3                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 1611                                    | lemon      | 4                           | 4.5     | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| *2217                                   | apple      | 3.5                         | 3-20AFU | 4.5                   | 4.5 | 4                    | 4   | 4.5 | 4.5 | 4   | 4    | 4.5                      | 4   | 4   | 4.5 | 4.5 | 4   | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4    | 4.5           | 4   | 4.5 | 4.5 | 4.5 | 4.5 |
| 3015                                    | new purple | 3.5                         | 4       | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4                        | 4   | 3.5 | 4   | 4   | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 4615                                    | amethyst   | 3.5                         | 3       | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4   | 4.5 | 4.5 | 4   | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4    | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| 0611                                    | lemonade   | 4                           | 4       | 4.5                   | 4.5 | 4.5                  | 4.5 | 4.5 | 4.5 | 4.5 | 4.5  | 4.5                      | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5                   | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4.5                      | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 |
| * FLOURESCENT COLOURS AATCC-16 10 AFU   |            |                             |         |                       |     |                      |     |     |     |     |      |                          |     |     |     |     |     |                       |     |     |     |     |     |                   |          |                          |      |               |     |     |     |     |     |
| *0113                                   | neon pink  | 3.5                         | 3       | 4                     | 4.5 | 3.5                  | 3.5 | 4.5 | 4.5 | 3.5 | 3.5  | 4.5                      | 3.5 | 3.5 | 4.5 | 4.5 | 3   | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4        | 3                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 |     |
| 3112                                    | old coral  | 3.5                         | 2.5     | 4.5                   | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4.5 | 3.5  | 4                        | 4   | 3.5 | 4   | 4   | 3.5 | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 3                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 |     |
| 5717                                    | mint       | 4                           | 2.5     | 4                     | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4   | 4    | 4.5                      | 4   | 4   | 4.5 | 4.5 | 4   | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 4                        | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 |     |
| 4012                                    | new coral  | 3.5                         | 2.5     | 4                     | 4.5 | 4.5                  | 4   | 4.5 | 4.5 | 4   | 3.5  | 4.5                      | 4   | 4   | 4.5 | 4.5 | 4.5 | 4                     | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5               | 4.5      | 3.5                      | 4.5  | 4.5           | 4.5 | 4.5 | 4.5 | 4.5 |     |