ASAHI DYES AND CHEMICALS 株式会社



ASAHIFIX® XP-ECO

Creating sustainable value in Textile Process Application

ASAHIFIX® XP-ECO: An Innovative Reactive Dye Class for Cellulosic Application

Our highly innovative ASAHIFIX® XP-ECO range is a new industry benchmark solution for Cotton dyeing by Exhaust & Continuous application. The Economy & Ecology of Process Application with ASAHIFIX XP-ECO range of Product brings out tangible benefits to the End users

Environment

Optimises the use of scars Natural resources.

Economy

Idea is to translate the Process optimization into Economic benefits.

Process Optimization

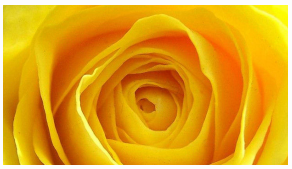
New Product Development in itself is an unfinished Project until process optimization is not taken care of.

Reactive Range Positioning



ASAHIFIX® XP-ECO

ASAHIFIX®XP-ECO offers a Unique & Pioneering solution for Cellulosic dyeing that covers the majority of Colour Space.



ASAHIFIX® BRILLIANT YELLOW XP-ECO



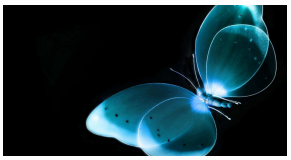
ASAHIFIX® YELLOW XP-ECO



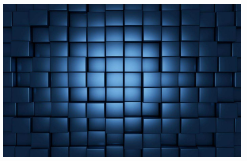
ASAHIFIX® ORANGE XP-ECO



ASAHIFIX® RED XP-ECO



ASAHIFIX® LIGHT BLUE XP-ECO



ASAHIFIX® DEEP BLUE XP-ECO

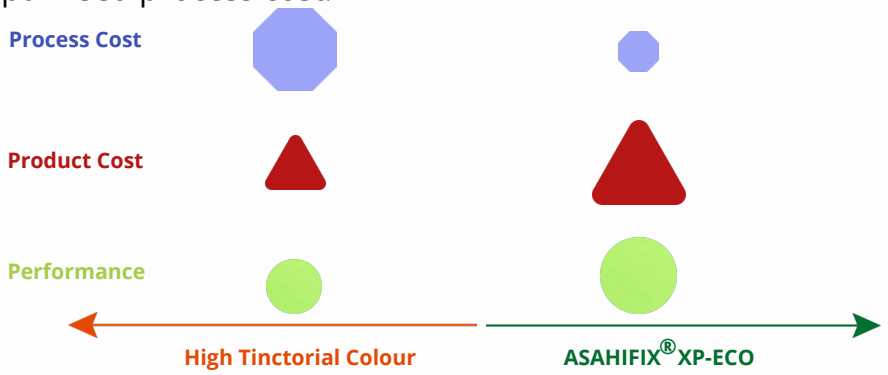


ASAHIFIX® DEEP SEA XP-ECO



ASAHIFIX® BLACK XP-ECO

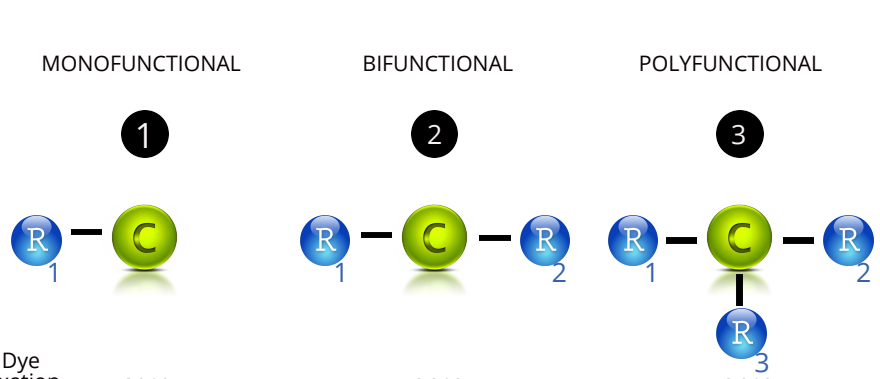
ASAHIFIX®XP-ECO is an innovation with enhanced performance and optimised process cost.



The unique compatibility of this range coupled with its extraordinary wash-off performance outlines it as a precious performance booster to enhance process & fastness-related issues.

The robust application behavior avoids reprocessing and improves Right First Time (RFT). This enhances the profitability of the dye houses. Process cycle rationalization helps to cut Emission intensity in terms of Carbon dioxide (CO_2) equivalent.

ASAHIFIX® XP-ECO : A Multi-anchored Molecule



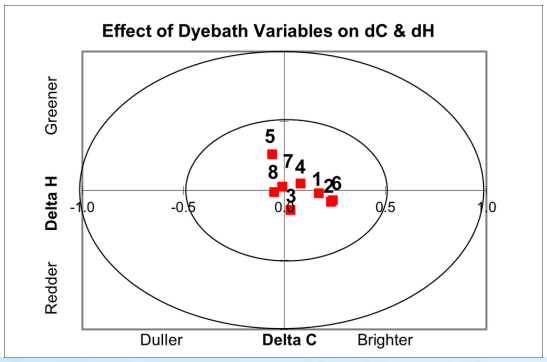
	MONOFUNCTIONAL	BIFUNCTIONAL	POLYFUNCTIONAL
Dye Fixation	60%	80%	>80%
Unfixed Dye	40%	20%	<20%



C- colour bearing Chromophore R1,R2,R3- Anchor groups

Robustness to Process Variables

Effect of Dyebath Variables on dC and dH



Shade: Grey

0.50% ASAHIFIX ORANGE XP-ECO
0.60% ASAHIFIX RED XP-ECO
1.50% ASAHIFIX DEEP BLUE XP-ECO

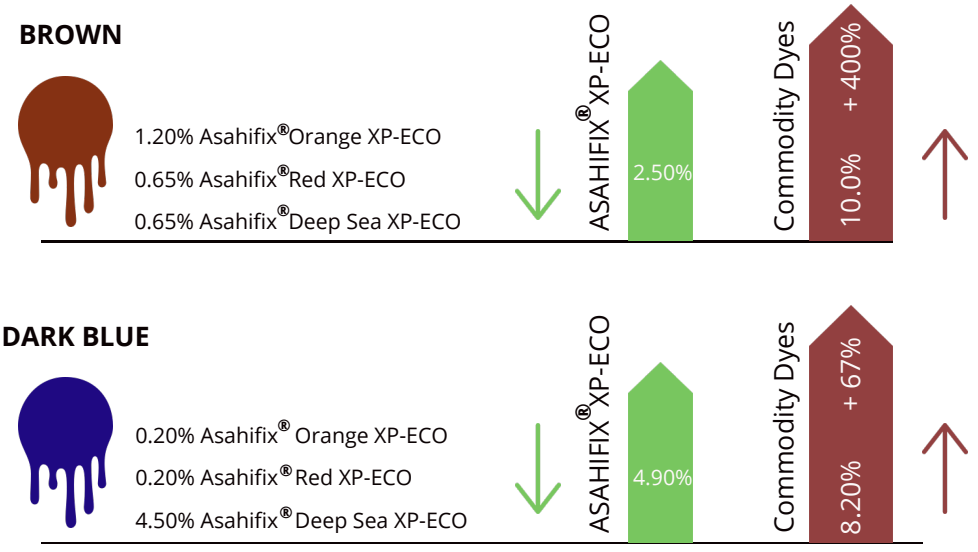
Robustness Index: 0.51

Product Performance & Process Optimization intertwined together with ASAHIFIX XP-ECO product range has brought outstanding benefits to the customer.The molecular innovation has promoted ultimate product performance which eventually has helped dye houses to optimize the process with following additional benefits :-

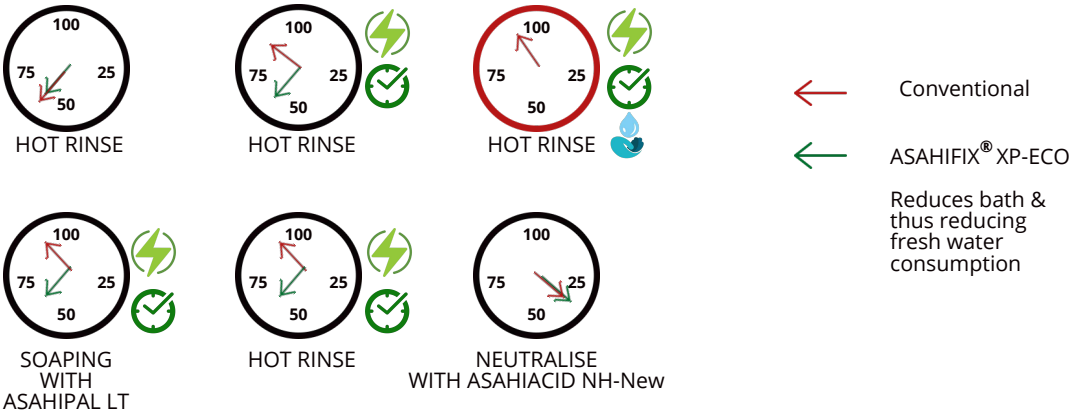
1. Excellent fastness performance
2. Exceptional washing-off properties
3. One pass wash-off for dark shades
3. Saving of time, water and energy
4. Low reprocessing cost
5. Suitable for all kinds of multiple home laundering programs
6. Stable to chlorine
7. Blue elements stable to NOX and BPO

with the Economy at its core,ASAHIFIX® XP-ECO is right for every season.

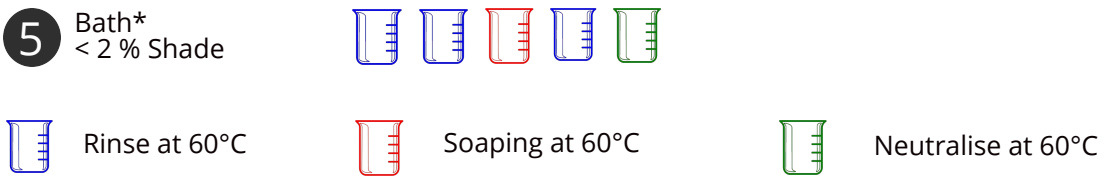
ASAHIFIX® XP-ECO: FOR ECONOMICAL ULTIMATE DEEP SHADES



ASAHIPAL Unique Wash-off Procedure



Bath Recommendation for ASAHIFIX® XP-ECO



* 2 Bath Soaping is recommended for shades above 2% for Better Fastness level

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ASAHIFIX / PROPERTIES	BRL YELLOW XP-ECO	YELLOW XP-ECO	ORANGE XP-ECO	RED XP-ECO	LIGHT BLUE XP-ECO	DEEP BLUE XP-ECO	DEEP SEA XP-ECO	BLACK XP-ECO
Standard Depth (1/1 SD)	3.50%	3.00%	1.50%	2.50%	4.00%	2.00%	1.70%	6.00%
Solubility Water (30 °C) g/l	200	200	200	200	200	200	200	200
Solubility Salt 90 g/l (90 °C)	154	<5g/l	200	125	125**	154	200	200
Warm Exhaust	◆	◆	◆	◆	◆	◆	◆	◆
Cold-Pad-Batch	◆	◆	◆	◆	◆	◆	◆	◆
Pad-Dry-Pad-Steam	◆	◆	◆	◆	◆	◆	◆	◆
Pad steam	◆	◆	◆	◆	◆	◆	◆	◆
Dischargeability (Alkaline)	○	◒	○	●	●	○	○	○
Light Fastness (ISO 105 B02) Grade-6 (2/1 SD)	-	-	-	-	-	3-4	3-4	4
Light Fastness (ISO 105 B02) Grade-6 (1/1 SD)	5	5-6	4	3-4	5	3	3	-
Light Fastness (ISO 105 B02) Grade-6 (1/3 SD)	4	5	3-4	3	4-5	-	-	-
Weathering Fastness (ISO 105 B04) Grade-4	4	-	2	2-3	4+	3	3	4
Chlorine Water (JIS L 0884-20 mg available Cl)	4	4	4	4	4	3-4	4	4
Perspiration Fastness-ISO 105 E04 (Acid)	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5
Perspiration Fastness-ISO 105 E04 (Alkali)	4-5	4-5	4-5	4-5	3-4	4-5	4-5	4-5
Washing (ISO 105 C06/C2S at 60°C)	4-5	4-5	4-5	4-5	4	4-5	4-5	4-5
Domestic & Commercial Laundry(ISO 105 C09)	4	4	4	4	4	4	4	4-5
Rubbing Fastness (ISO 105 X12)-Dry Rub	4-5	4-5	4-5	4-5	4-5	4-5	4-5	4-5
Rubbing Fastness (ISO 105 X12)- Wet Rub	3-4	3-4	3-4	3-4	3	3-4	3-4	2-3
BPO Fastness (10% Anhydrous BPO)- 24 hr	4-5	4-5	4	4	2	3-4	4	4-5
Perspiration Light (ISO 105 B07- Acid)	4	4+	4	3-4	4+	3-4*	3-4*	4
Perspiration Light (ISO 105 B07- Alkaline)	4	4+	4	3	4	3*	3*	3-4

SD - Standard Depth ◆ - Suitable ◈ - Partially Suitable ◇ - Not Suitable

○ White Discharge ◒ Moderately Dischargeable ● Non-Dischareable

*Fastness rating at 2/1 SD ** 50g/l salt

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KEY HIGHLIGHTS

- Excellent fastness performance.
- One pass wash-off for dark shades.
- Excellent Shade Build-up.
- Excellent Wash-off properties.
- Saving of Time, Water and Energy.
- Low reprocessing cost.
- Process Application Flexibility.
- Robust Ternary Combination.
- Suitable for all kinds of multiple home laundering programs.
- Stable to chlorine.
- Blue elements stable to NO_x and BPO.
- Excellent Fastness to Repeated Home Laundering (with tap water containing chlorine).

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Asahi Dyes And Chemicals Co., Ltd.

1-14-304, Koyocho-Naka, Higashinada-Ku Postal code: 658-0032 , Kobe, Hyogo-JAPAN
Tel: +81-78-858-6707 | Email: info@asahidyes.jp