

ColourFall Colourants

ColourFal Zerø® colourants represent our line of universal VOC-free colourants. A line of colourants not just for those who need an optimal system but for those who care for high performance, quality colourants.

Designed to deliver optimal performance with unsurpassed compatibility, ColourFal Zerø® provides one of the cleanest and richest colour palettes available in the market



PARTNER WITH LORAMA GROUP AND ENJOY THE COLOURFAL ZERØ® ADVANTAGE

By partnering with Lorama Group, enjoy access to a host of technical services provided by our team of full-time chemists. Our experts will aid and assist you in the areas of:



At Lorama Group we understand innovation is key to success. Our team is available to create custom solutions to meet ever-changing market needs, from formulation to customization.



PARTNERSHIP

By joining hands with Lorama Group, our team will help you with both technical and logistical support. Our experts will be with you from formulation to after-sales support, every step of the way.



SUSTAINABILITY

ColourFal Zerø® contains raw materials from renewable resources. Using bio-based chemistry is part of our DNA, helping support the environment for generations to come.



TRAINING & DEVELOPMENT

Lorama University helps impart both sales and technical knowledge to our partners - helping with colour theory, paint manufacturing and colour marketing.

What's more you will enjoy a host of technical, marketing and logistics services all aimed to help grow and sustain your business.





Lorama Group's entry into the colourant business was not planned- we were pulled into the business when we realized that customers' colourant needs could not be addressed with existing colourant technology.

Since 1977, Lorama has focused on expertise in polysaccharide technology enhancements and adapting it to coatings and commercial applications. technical service lab was dedicated to implementation and paint formulation optimization globally.

While generating enhanced performance, costs savings and reduced VOC in paint formulations; Lorama was constantly requested to resolve wetting/dispersion, compatibility and incorporation issues with colourants.

Over the course of time, a deep understanding was acquired to optimize colourants in paint bases, fix common issues and provide targeted solutions.

VOC-free colourants brought with it a multitude of technical issues which traditional additives & approaches could no longer address

Lorama takes a different approach.

Typical approaches to solve VOC-free colourant issues focused on modifying colourant properties. However, paint formulations differ vastly from each other by market. Application of any change to the colourant was often done at the expense of the paint properties. Paint formulation became secondary, only a limited set of bases were considered and machines were changed to improve dispensing characteristics.

With an understanding of overall paint technology and colourants, Lorama embarked on a wholistic solution keeping in view the desired application experience. A new colourant system was required to address performance and dispensing characteristics in a

LORAMA PAINT MODIFICATION KNOW-HOW

Applying our knowledge of **Paint and Additive Technology to** VOC-free colourants

- Wetting/Dispersion • Rheology Modifier
- Protective Colloid
- Polysaccharide Binder Technology • Humectant/Open Time Extenders

LORAMA COLOURANT EXPERIENCE

- **VOC-free Colourant Issues**
 - Settling & Clogging in Dispenser Flood/Float Compatibility Issues
- Post Tint Viscosity Drop • Surfactant Leaching colourant issues
 - Drying at the Tip

Lorama's R&D creates a system of wetting & dispersion to grind pigments to provide outstanding compatibility & humectancy for machine tinting.

This bold step optimizes both paint film properties and tinting machine operation.

2010 Lorama introduces PATENTED



Utilizing our deep understanding and insight of paint and its applications, Lorama Group had the perspective to THINK. With a vision that optimized both paint properties and tint application, steadily the DREAM of a wholistic colourant solution was realized. Our entrepreneurial tenacity led us to CREATE and patent a sustainable solution through SmartTint® technology.

THINK.DREAM.CREATE.

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As a patented technology, SmartTint® is a revolution in point of sale colour technology. Developed by Lorama Group, this unique chemistry is designed to provide exceptional results in machine dispensed colourant lines. SmartTint® has been a global success across continents and climate systems. Our customer feedback further reinforces that no other chemistry in the market has replicated the below advantages as effectively and efficiently as SmartTint®.

How SmartTint® supports ColourFal Zerø®

ColourFal Zerg® with SmartTint® properties Manufacturer patented SmartTint® derived from LPR technology benefits technology Elimination of dry tip Resin Based without the use of Humectant/Open Time **PEGs** Extender Minimized surfactant Polymeric leaching Surfactant/Film Forming Binder Technology **Enhanced** colour Superior colour reproduction acceptance and and paint performance colour vibrancy Minimized dispensing Grinding Resin/Dispersion Minimized viscosity machine maintenance. Agent drop and downtime & replacement incompatibility costs Minimized colourant settling during Rheology transport and in the Modifier POS machine Minimized freeze **Protective** thaw concerns Colloid

Advantages of ColourFal Zerø® Point-of-Sale Colourants

Applicable to 400, 500, 700 and 900 Series

- Environmentally Friendly ColourFal Zerø® is created with raw material from renewable resources
- Machine Compatibility Compatible with any Automatic or Manual Tint Machine
- Lower Downtimes SmartTint® technology reduces machine maintenance
- Unparalleled Range ColourFal Zerø® can be used with both water and solvent base paints
- Health and Safety VOC-Free, Alkylphenol Ethoxylate (APE) free and free of formaldehyde and formaldehyde donors
- Minimized viscosity drop post tinting
- Industry leading tip dry out resistance technology
- No pigment settling in container & dispensing unit
- No flocculation, rub up or picture framing
- Consistent colour reproduction

ColourFal Zerø® colourants can be used to create a fully customized system. Our team will work to create a system tailored to your needs.

Advantages of ColourFal Zerø® In-Plant Colourants

Applicable to 950 and 955 Series

ColourFal Zerø® 950 (VOC-free*) and ColourFal Zerø® 955 (Low-VOC) colourants are high strength aqueous binder-free pigment dispersions manufactured without alkyl phenol ethoxylated (APEO) additives. These aqueous pigment dispersions are compatible across a broad range of water and low-VOC coatings. They are designed for optimal flow and shelf stability, with high prime pigment loading for optimal tint strength.

PRODUCT BENEFITS

- Broad range aqueous compatibility for paints, plasters, inks and various systems
- High tint strength in an APEO-free water-based chemistry platform
- A tint extender 900-000 EXT is available to adjust the tint strength if required
- Superior shelf stability against pigment settling and viscosity increase
- *ASTM D6886

Packaging is important. ColourFal[®] and ColourFal Zerø[®] tamper evident lids give you peace of mind to know that factory quality is maintained. The translucent natural colour of the plastic allows for quick viewing of the colourant inside.



CANISTER	PRODUCT	PRODUCT	SPECIFIC	% PIGMEI	NT SOLIDS	% By WT.	Light Fastness (Full Shade/Tint)	Weather Fastness (Full Shade/Tint)	Chemical Resistance
CODE	CODE D	DESCRIPTION	GRAVITY	Wt.	Vol.	Total Solids			
AXX	400-010	Organic Yellow	1.38	50.2	35.4	65.5	7-8/6-7	4/3-4	4
В	400-020	Lamp Black	1.42	43.3	24.2	62.6	8/8	5/5	5
С	400-030	Yellow Oxide	1.97	59.8	28.4	77.0	8/8	5/5	5
D	400-040	Phthalo Green	1.43	44.8	26.4	64.9	8/8	5/5	5
E	400-050	Phthalo Blue	1.39	41.4	22.8	59.2	8/8	5/5	5
F	400-060	Red Oxide	2.07	60.4	26.1	80.4	8/8	5/5	5
1	400-070	Brown Oxide	1.85	60.0	30.0	79.2	8/8	5/5	5
KX	400-080	Titanium White	2.10	66.3	37.3	81.9	8/8	5/5	5
L	400-090	Raw Umber	1.48	45.1	22.3	63.9	8/8	5/5	5
R	400-100	Organic Red	1.41	44.3	27.3	60.2	7/7	4/4	4-5
Т	400-110	Medium Yellow	1.36	46.7	35.8	64.5	8/7	4-5/5	4
٧	400-120	Magenta	1.28	37.2	21.5	56.2	8/7	4/4	4-5
AN	400-130	High Performance Yellow	1.61	53.1	27.4	67.7	8/8	5/5	5
RN	400-140	High Performance Red	1.32	37.9	23.7	53.1	8/8	4-5/4-5	5
AXT	400-160	HH Yellow	1.47	50.0	33.1	65.1	7-8/7	4-5/4-5	4-5
RX	400-170	Exterior Red	1.31	37.5	24.1	52.4	8/8	5/5	5

CANISTER	PRODUCT	PRODUCT DESCRIPTION	SPECIFIC	% PIGMEN	NT SOLIDS	% By WT.	Light	Weather Fastness (Full Shade/Tint)	Chemical Resistance
CODE	CODE		GRAVITY	Wt.	Vol.	Total Solids	Fastness (Full Shade/Tint)		
AXN	500-010	Organic Yellow	1.35	42.5	28.2	59.5	7-8/6-7	4/3-4	4
В	500-020	Lamp Black	1.22	26.7	27.9	47.7	8/8	5/5	5
С	500-030	Yellow Oxide	1.83	57.4	26.4	75.2	8/8	5/5	5
D	550-045	Phthalo Green	1.42	44.2	25.1	63.9	8/8	5/5	5
E	550-055	Phthalo Blue	1.35	38.3	21.0	55.8	8/8	5/5	5
F	500-060	Red Oxide	2.02	57.3	22.3	77.5	8/8	5/5	5
1	500-070	Brown Oxide	1.63	49.7	22.5	68.2	8/8	5/5	5
KX	500-080	Titanium White	2.07	67.0	37.6	82.4	8/8	5/5	5
L	500-090	Raw Umber	1.47	43.5	21.0	62.3	8/8	5/5	5
S	500-100	Organic Red	1.29	32.4	17.2	49.8	7/7	4/4	4-5
Т	500-110	Medium Yellow	1.28	44.2	25.1	61.4	8/7	4-5/5	4
М	500-120	Magenta	1.29	38.3	21.0	52.4	8/7	4/4	4-5



CANISTER	PRODUCT	PRODUCT DESCRIPTION	SPECIFIC GRAVITY	% PIGMEN	T SOLIDS	% By WT. Total Solids	Light Fastness (Full Shade/Tint)	Weather Fastness	Chemical
CODE	CODE			Wt.	Vol.			(Full Shade/Tint)	Resistance
QS	700-010	Yellow HS	1.29	37.5	25.9	61.7	7-8/6-7	4/3-4	4
XS	700 - 020	Black	1.32	34.7	18.8	59.4	8/8	5/5	5
TS	700 - 030	Yellow Oxide	1.88	56.2	25.7	75.8	8/8	5/5	5
PS	700 - 040	Green	1.28	30.1	16.4	56.5	8/8	5/5	5
LS	700 - 050	Blue	1.26	26.7	13.6	53.1	8/8	5/5	5
YS	700 - 060	Red Oxide	2.01	60.0	25.3	78.9	8/8	5/5	5
JS	700- 070	Black HS	1.24	35.5	23.4	59.0	8/8	5/5	5
KU	700 - 080	White	2.04	65.0	36.4	80.6	8/8	5/5	5
WS	700 - 090	Umber	1.62	51.1	25.1	69.3	8/8	5/5	5
NS	700 - 100	Red	1.23	22.9	12.1	54.3	8/7	4/3-4	4-5
US	700 - 110	Orange	1.27	33.2	19.6	56.9	8/8	4-5/4-5	5
BS	700 - 120	Magenta	1.12	25.5	19.4	45.5	8/7	4/4	4-5
MS	700 - 130	Yellow	1.38	44.4	27.6	59.6	8/7	4/4	4-5
VS	700 - 140	Red HS	1.25	33.5	21.7	59.6	8/7	4-5/3	4
ZS	700 - 150	Violet	1.31	35.6	19.8	60.3	7-8/7-8	4-5/4	5
RS	700 - 160	Blue HS	1.28	41.8	31.7	63.3	8/8	5/5	5

CANISTER	PRODUCT	PRODUCT DESCRIPTION	SPECIFIC	% PIGMENT SOLIDS		% By WT.	Light	Weather Fastness	Chemical
CODE	CODE		GRAVITY	Wt.	Vol.	Total Solids	Fastness (Full Shade/Tint)	(Full Shade/Tint)	Resistance
BIO	900-020	Black Oxide	1.85	55.0	21.6	<i>7</i> 1.1	8/8	5/5	5
DXE	900-040	High Strength Green	1.31	37.1	25.6	58.4	8/8	5/5	5
СВЕ	900-050	Cobalt Blue	2.09	62.0	28.7	72.8	8/8	5/5	5
REE	900-140	High Strength Red	1.28	43.0	31.6	58.1	8/8	5/4-5	5
ORE	900-150	High Strength Orange	1.29	46.7	33.6	66.3	8/8	5/5	5
BVE	900-160	High Strength Yellow	1.89	57.7	23.6	74.8	8/8	5/5	5
UE	900-180	Ultramarine Blue	1.81	55.2	23.8	78	8/8	4-5/4-5	5
DXO	900-190	Green Oxide	2.23	65.0	27.8	83.7	8/8	5/5	5
ОХ	900-200	Orange Oxide	1.77	55.1	25.6	78	8/8	5/5	5

Pages 5 to 6 demonstrate typical colourant values and are not product specifications.

The data for light fastness, weather fastness, and chemical resistance is derived from pigment manufacturers. Light Fastness: (8=excellent, 1=poor) Tint = (1:4.6 TiO_2), Weather Fastness: (5=excellent, 1=poor); 12 months/Long Oil Alkyd, Chemical Resistance: (5=excellent, 1=poor).

^{*} US EPA Method 24



CANISTER CODE	PRODUCT CODE	PRODUCT DESCRIPTION	COLOUR INDEX	SPECIFIC GRAVITY	% PIGMENT SOLIDS By Wt.	LIGHT FASTNESS (Full shade/Tint)	WEATHER FASTNESS (Full shade/Tint)
EXT	900-000	Extender	Talc	1.78	60	8/8	5 / 5
AXX	950-010	Yellow 5GX	PY74	1.24	40	6/5	3-4 / 2
В	950-020	Black	PBK7	1.26	43	8/8	5 / 5
С	950-030	Yellow Oxide	PY42	2.07	65	8/8	5 / 5
D	950-040	Green	PG7	1.36	50	8 / 7-8	5 / 4-5
ER	950-050	Blue R/S	PB15:1	1.22	40	8 / 7-8	5 / 4-5
EG	950-055	Blue G/S	PB15:3	1.22	45	8 <i>/ 7-</i> 8	5 / 4-5
F	950-060	Red Oxide	PR101	2.21	65	8/8	5 / 5
KX	950-080	White	PW6	2.10	65	8/8	5 / 5
S	950-100	Organic Red	PR112	1.20	47	7/5	4/3
BS	950-120	Magenta	PR122	1.18	32	7-8 / 7-8	4-5 / 4-5
AN	950-130	Exterior Yellow	PY154	1.15	30	8/8	5 / 5
ZS	950-150	Violet	PV23	1.24	30	8/8	4-5 / 4
BVE	950-160	BV Yellow	PY184	2.32	65	8/8	5 / 5

CANISTER CODE	PRODUCT CODE	PRODUCT DESCRIPTION	% PIGMENT SOLIDS By Wt.	COLOUR INDEX	LIGHT FASTNESS (Full shade/Tint)	WEATHER FASTNESS (Full shade/Tint)
AX	955-010	Organic Yellow	52	PY74	6/5	3-4 / 5
В	955-020	Black	42	PBk7	8/8	5 / 5
CX	955-030	Yellow Oxide	57	PY42	8/8	5 / 5
DX	955-040	Green	52	PG7	8 / 7-8	5 / 4-5
ER	955-050	Blue (Red Shade)	52	PB15	8 / 7-8	5 / 4-5
EG	955-055	Blue (Green Shade)	51	PB15:3	8 / 7-8	5 / 4-5
FX	955-060	Red Oxide	65	PR101	8/8	5 / 5
KX	955-080	White	53	PW6	8/8	5 / 5
R	955-100	Organic Red	49	PR112	7/5	4/3
FR	955-105	Fast Red	47	PR146	6 / 4	3 / 2
BS	955-120	Magenta	32	PR122	7-8 / 7-8	4-5 / 4-5
SR	955-140	Scarlet	47	PR3	6/4	3 / 2
ZS	955-150	Violet	33	PV23	8/8	4-5 / 4
OR	955-170	Orange	40	PO5	6 / 4	3 / 2

Overcoming Global Challenges



Tint Base Services

Planning on manufacturing paint bases? Want to add an additional product line?

Let's get you up and running quickly.

Introducing COLOURFAL® RAPIDTINT

ColourFal® RapidTint is an effective paint system that allows you to hit the ground running and begin your point of sale operations in the least possible time. Being a fully customizable solution, the system allows for modifications within your colourant set, number of bases and even your fandeck.

ColourFal® RapidTint formulas can be based on a four, three or two base system. What's more, the formulas are designed keeping **local raw material availability in mind.** You will not experience sourcing or logistics issues. You can localize the formulation further by using your local key raw materials e.g. Titanium Dioxide or Calcium Carbonate.

Starting point formulas for these bases are available upon request. We offer two qualities of paint bases:

- 1. Essential line (Matte and Satin)
- 2. Premium line (Matte and Satin)

Our team of experts will be available to guide you every step of the way, from initial formulation to final production.

How it works:

- 1. We provide paint formulations and samples that can be used as reference or standard.
- 2. Formulations are produced in your manufacturing facility.
- 3. We prepare your very own customized Formula Book.
- 4. We ensure that you are prepared for a successful launch.
- 5. We offer colour marketing material and training as an advantage to help boost your sales.

In this system, we take care of groundwork while you enjoy a quick manufacturing set-up and faster paint to market scenario.



Support & Services

Lorama Group has built its business on providing the highest level of customer service that is quickly disappearing from our industry today. We understand that with limited resources and time it is a challenge for our customers to implement new technologies and specialty additives into a vast array of formulations. Our laboratory services are designed to give manufacturers the competitive edge they need in today's marketplace.

LORAMA GENERAL LAB SERVICES

- Paint Formulation Support
- On-site Technical Support
- On-site Scale Up
- Paint Training Programs
- Ongoing Research and Development

COLOURFAL® LAB SERVICES

- Colour matching and formula book generation
- Database construction and maintenance
- Incorporation of new fandecks and colour cards
- Tint base cost efficiency and performance analysis
- Raw Material rationalization
- Colour space analysis and customization of colourant set



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Colour Insights

www.colourinsights.com

Colour Insights is a value-added service provided by Lorama to assist ColourFal clients, providing design and editing assistance to clients in the pursuit of precise and inspirational scenes for the ColourChic. Since inception, Colour Insights has strived to provide exclusive client galleries, trend insights and training to maximize any ColourFal® system.

Ever forward-looking, our team of experts at Colour Insights is often asked; "What should we expect next?" To best answer this question, we recommend that clients subscribe to this service which can support their objectives of pushing the boundaries of colour innovation, collaborating to explore new frontiers, developing groundbreaking technologies, and uncovering novel applications for colour across various industries.

Being a member of Colour Insights will help you gain invaluable insights from our vast repository of colour research, trends, and market analysis as well as stay ahead of the curve with up-to-date market. As a subscriber, ColourFal clients will have the opportunity to collaborate on the development of exclusive colour products and solutions tailored to their specific needs.

Leverage Colour Insights expertise and cutting-edge resources to differentiate your business in the market and captivate audiences with unparalleled colour experiences.



The ColourFal[®] Studio app is a white label app available exclusively for ColourFal clients, the app allows homeowners and contractors to easily apply state-of-the-art augmented reality within their spaces to make quicker and more confident colour choices, thus helping them get the perfect colour on walls in a fast, seamless, and accurate manner.

Users can decide between various colour options, design custom palettes and share their results in multiple ways. The app contains a product filter, allowing for calculating how much paint will be required for the project. With the support of Lorama's Colour Insights ecosystem, the app showcases various impressions, trends, and future predictions on popular global trends and colours.





Colour Education



Online Gallery Support



ColourFal® Studio App



Available on the App Store



android app on Google Play

Colour Tools



COLOURCHIC Fandeck Part #49101010

Designer inspired collection featuring 1232 colours ranging from neutrals to the hottest, vibrant trends in the market. Six colours per page are arranged from vibrant to pastel. Each page is chromatically organized for easy colour look up. There is a special section for 32 off-whites. Standard quantities are 20 fandecks per box.



ColourSensations Fandeck

Part # 49101022

A unique collection featuring 2232 colours. This fandeck features a well-balanced colour palette showcasing an extensive range of both neutral and accent colours. Specially selected by experienced designers. Eight colours per page are arranged from vibrant to pastel. For easy colour look up this fandeck features colour dividers. Standard quantities are 10 fandecks per box.

Our displays range from 2' to 4' and can be customized

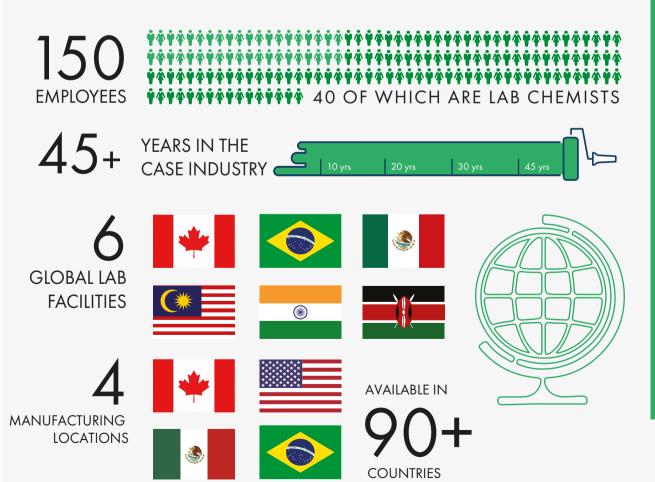


The Lorama Difference



Founded in 1977 and headquartered near Toronto, Canada, Lorama Group Inc. is both a manufacturer of Colour Dispersions & Bio-based Additives, as well as an international distributor of Specialty Chemicals and Functional Extenders. Through our entrepreneurial spirit and with deep expertise in global regulatory and raw material requirements, Lorama has grown to service a multitude of markets across over 90 countries.

Having in-depth technical expertise and the ability to fully deconstruct and rebuild formulations, Lorama Group is recognized worldwide for our knowledge and eagerness to help with paint formulation. In addition to having 6 global labs, our main laboratory powerhouse is situated near Toronto, housing our R&D, technical services and colour services group. Customers rely upon our 40 active chemists for commercially proven solutions through our wholistic consultative technical sales and service approach. For over 45 years we have supplied commercially cost-effective sustainable solutions, helping our customers thrive in highly competitive markets.



Other Products

CATEGORY	PRODUCT NAME	RECOMMENDED SYSTEM Water-Based Solvent-Based		
COLOURANTS	COLOURFAL ZERØ® COLOURFAL INDUSTRIAL	©	©	
DISPERSING AGENTS	Dispersant • LDA® 600 • LDA® W4 • LDA® W5 Polymeric Dispersant • LDA® 100 • LDA® 150 • LDA® 154 • LDA® 160 Pigment Stabilizer • LDA® 320 • LDA® 410 • LDA® 411	000	0 0 0 0 0	
ANTI-FOAM	• LAF® 120 • LAF® 231	©	⊘	
pH STABILIZER	 LORAMINE™ PLUS pHLORA ZERØ™ pHLORA ZERؙRT 	0 0		
POLYSACCHARIDE RESIN TECHNOLOGY	• ECØ® • ECØ® 100 • ECØ FLO® • INKRES® 33 • LPR76® • LPR® 221 • LTB®	000000	0 0 0	
RHEOLOGY MODIFIER	• FALGEL® 60 • FALGEL® 90 • RHEOFAL™101 • RHEOFAL™102 • RHEOFAL™301	000	o	
SPECIALTY ADDITIVES	• LWD® 100	0		