



Expanding Possibilities for the Colouration of Rubber

Agenda

- **Introduction**
- **Current methods for the colouration of rubber**
- **The history of using these methods**
- **Why are options so limited compared to other polymers?**
- **The technical challenges**
- **Current possibilities with Prisma Colour**



Introduction

- The company was formed in 1991. Now operating from 3 locations it has become a leading supplier of masterbatch to rubber, plastic and coatings industries.
- €7 million, 55 employees
- 3000 tonnes capacity. 2300 tonnes manufactured 2010
- Independent
- Global distribution network and supplying in over 12 countries
- Appointed CH Erbsloeh as sole distributor for Germany - 2009

Current methods for the coloration of rubber

- Pigments
 - Dirty
 - H&S
 - Dispersion time
 - Consistency
- Single pigment dispersions
 - Clean
 - Pre-dispersed
 - Based on EVA or wax
- Both types must be added to a closed mixer
- Both types make colour matching difficult

THE SOLUTION IS MASTERBATCH !



History of using these methods

- Major pigment suppliers dominate rubber colouring
- Used a method of promoting their pigment sales.
- Lack of viable alternatives



Why are the options so limited compared to other polymers?

- For other polymers such as thermoplastics you can have any colour?
- A quick look at any thermoplastic masterbatch company websites will show you range of possibilities.
- Pigment choice is unlimited
- Products are clean, easy to handle and dose
- Carrier type is flexible



The technical challenges




























- **Regulatory approvals. Such as FDA and BfR**
- **Light and weather fastness**
- **Custom colour matching. Including RAL and Pantone systems**
- **Influence of base colour and cure conditions**
- **Repeatability colour consistency**
- **Influence of waxes on formulation**



Current possibilities with Prisma Colour

- **Polymer specific. Carrier system can be tailored to the end polymer**
- **Clean, pre-dispersed and will mix at room temperature**
- **Reducing mixing time**
- **Global pigment sourcing**
- **Colour matching**
- **Industry knowledge allows matching to a specification**

- **Prisma-Gum-S**
 - **Slab**
- **Prisma-Gum-G**
 - **Granulated**
- **Prisma-Gum-X**
 - **Ultra high dispersion**
- **Prisma-Gum-F**
 - **For FKM**
- **Prisma-Sil**
 - **For Silicone**

Colour	Prisma Colours				Clariant		BASF	
	C.I. Nr.	Product	Code	Active Content	Product	Active Content	Product	Active Content
	PR 101	Prisma-Gum Ox. Red	C-931	60%	n.a.		n.a.	
	PR 101	Prisma-Gum Ox. Red	C-940	50%	n.a.		n.a.	
	PR 38	Prisma-Gum Red	A-682	57%	Hostasin Red B 30	50% - 60%	n.a.	
	PR 208	Prisma-Gum Red	A-683	55%	Hostasin Red HF2B 30	50% - 60%	n.a.	
	PR 53:1	Prisma-Gum Red	A-684	55%	Hostasin Red LC 30	50% - 60%	n.a.	
	PR 254	Prisma-Gum Red	J-752	50%	n.a.		Microlen Red 2030-MC	n.a.
	PR 144	Prisma-Gum Red	J-896	60%	n.a.		Microlen Red BRN-MC	n.a.
	PR 48:1	Prisma-Gum Red	J-636	60%	n.a.		n.a.	
	PR 48:3	Prisma-Gum Red	J-996	50%	n.a.		n.a.	
	PR 57:1	Prisma-Gum Red	J-635	60%	n.a.		n.a.	
	PR 122	Prisma-Gum Pink	B-970	46%	n.a.		n.a.	
	PO 13	Prisma-Gum Orange	A-686	57%	Hostasin Orange G 30	50% - 60%	n.a.	
	PO 34	Prisma-Gum Orange	A-012	45%	n.a.		Microlen Orange F2G-MC	n.a.
	PY 42	Prisma-Gum Ox. Yellow	B-776	60%	n.a.		n.a.	
	PY 13	Prisma-Gum Yellow	A-689	57%	Hostasin Yellow GR 30	50% - 60%	n.a.	
	PY 93	Prisma-Gum Yellow	P-029	50%	n.a.		Microlen Yellow 3G-MC	n.a.
	PY 83	Prisma-Gum Yellow	A-688	50%	Hostasin Yellow HR 30	50% - 60%	Microlen Yellow B3RS-MC	n.a.
	PY 180	Prisma-Gum Yellow	A-687	55%	Hostasin Yellow HG	50% - 60%	n.a.	
	PG 7	Prisma-Gum Green	A-680	60%	Hostasin Green GG 30	50% - 60%	Microlen Green GFN-MC	n.a.
	PBk 7	Prisma-Gum Black	C-644	50%	n.a.		Microlen Black B-MC	n.a.
	PB 15:3	Prisma-Gum Blue	J-937	50%	n.a.		Microlen Blue 4GNP-MC	n.a.
	PB 15:1	Prisma-Gum Blue	J-678	55%	Hostasin Blue A2R 30	50% - 60%	Microlen Blue BCS-MC	n.a.
	PB 60	Prisma-Gum Blue	J-118	50%	n.a.		Microlen Blue A3R-MC	n.a.
	Blend	Prisma-Gum Blue*	P-102	24%	n.a.		Microlen Blue A3R-MC	n.a.
	PV 23	Prisma-Gum Violet	P-028	50%	n.a.		Microlen Violet B-MC	n.a.

Colour representations are for illustrative purposes only and are not a true likeness.

*Cost effective, alternative to RD Blue J-118 & Microlen Blue A3R-MC

THANK YOU & QUESTIONS?