

TYPE

Cross linkable polymeric grinding medium

FORM OF DELIVERY (f.o.d.)

70 % in solvent naphtha 150/180 (containing also 4 % xylene)

PRODUCT DATA

Determined per batch:

Dynamic Viscosity DIN EN ISO 3219

dynamic viscosity (25 1/s; 23 °C)	[mPa.s]	1400 - 2600
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Iodine Colour Number DIN 6162

iodine colour number		<= 10
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Acid Value DIN EN ISO 2114

acid value (non volatile matter)	[mg KOH/g]	<= 10
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Non-Volatile Matter DIN 55671

non-volatile matter (120 °C; 5 min)	[%]	68 - 72
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Not continually determined:

Non-Volatile Matter DIN EN ISO 3251

non-volatile matter (1 h; 125 °C; 1 g)	[%]	68 - 72
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Hydroxyl Value DIN 53240

hydroxyl value (solid matter content)	[mg KOH/g]	95 - 120
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Density (Liquids) DIN EN ISO 2811-2

density approx. (20 °C)	[g/cm³]	1,06
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Flash Point DIN EN ISO 1523

flash point approx.	[°C]	40
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SPECIAL PROPERTIES AND USE

Additol XL 6557 provides pigment wetting, low paste viscosity, and good pigment stabilization in pigment pastes. The suggested use is as grinding medium for pigment pastes. Combination with co dispersants is strongly recommended to improve pigment stabilization and mill base viscosity reduction.

The polymer backbone of Additol XL 6557 is modified with pigment anchoring groups to support pigment wetting; due to its resin-like structure it maximizes the overall paint performance. The multifunctional drying and crosslinking concept allows co-crosslinking of the pigment pastes into 2K PUR or amino crosslinking baking systems. Further, if used inside an air drying alkyd, the material supports surface hardness via unsaturated double bonds.

Finished coatings tinted with Additol XL 6557 have high hardness, yellowing resistance, high gloss, good drying properties, good mechanical properties, high water resistance and/or excellent weather resistance.

In solvent borne industrial application such as coil coatings, marine and heavy duty anti corrosive paints, agriculture, industrial wood, and other metal coatings, the pigment pastes based on Additol XL 6557 support chemical and physical properties of the final paint system.

RECOMMENDED CO-DISPERSANTS:

For inorganic pigments and fillers: ADDITOL XL 6509 or ADDITOL XL 250
 For organic pigments: ADDITOL VXL 6237N or ADDITOL XL 6514/80
 For carbon black: ADDITOL XL 6521 or ADDITOL VXL 6237N

COMPATIBILITY RANGE

Excellent compatibility with:

- 2-component alkyd, acrylic resins
- 2 K- Epoxy resins
- Physical drying acrylic resins
- Melamine based crosslinkers
- Iscocyanate based crosslinkers
- Cellulose aceto butyrate (CAB)
- Nitro cellulose

Compatibility with Alkyds and Polyester as well with Epoxy resins needs to be confirmed

DILUTABILITY

Additol XL 6557 is readily diluted in aromatic solvents and in polar solvents like glycol ethers and esters as well as solvent naphtha. Only limited solubility exists in pure alcohol & aromatic free hydrocarbons.

STORAGE

At temperatures up to 25 °C storage stability packed in original containers amounts to at least 730 days.

STARTING POINT FORMULA

	1) PR 112 Sico Fast red L3855	1)PB 15:2 Heliogen blue L6905F	2) PV 19 Hostaperm red E2P70	3) PR202 Quindo Magenta 202	1) PG 7 Heliogen green L8730	4) PW 6 Kronos 2310	5) PY 42 Bayferrox 3920	6) PBL 7 Special black 4
ADDITOL XL 6557	37,00	38,00	30,00	33,00	35,00	15,00	22,50	38,00
ADDITOL XL 6509						2,00	1,50	
ADDITOL VXL 6237N	10,00	9,00	8,00	8,50	8,00			9,00
Methoxypropylacetate	29,50	37,50	26,50	38,00	31,50	11,20	22,00	34,50
MODAFLOW Resin	0,50	0,50	0,50	0,50	0,50	0,50	0,50	0,50
Pigment	23,00	15,00	35,00	20,00	25,00	70,00	52,00	18,00
6) Aerosil 200						0,70	1,00	
Grinding time (bead mill)	100 60 min	100 60 min	100 60 min	100 60 min	100 60 min	100 30 min	100 30 min	100 60 min
Pigment concentration	23%	15%	35%	20%	25%	70%	50%	18%
Dynamic viscosity								
DIN EN ISO 3219/23°C d:1001/s	2600mPa.s	600 mPa.s	750 mPa.s	750 mPa.s	1700 mPa.s	700 mPa.s	1000 mPa.s	400 mPa.s

- 1) product manufactured by BASF
- 2) product manufactured by Clariant
- 3) product manufactured by Sun Chemicals

- 4) product manufactured by Kronos
- 5) product manufactured by Lanxess
- 6) product manufactured by Evonik

PIGMENT PASTE PRODUCTION GUIDLINE

Premix full amount of ADDITOL® XL 6557, co dispersant, MODAFLOW Resin and solvent on a dissolver for a few minutes. Add continually pigment under stirring. Pre disperse for min. 15 min on a dissolver. Grind to particle size below 5 µm. Check color strength and mill to stable maximum color strength. Temperature during grinding should be between 30 - 50 °C or depending on the maximum temperatures of the used pigments.