Materialprüfanstalt für Werkstoffe des Maschinenwesens und Kunststoffe
Hannover
Geschäftsführender Direktor
Prof. Dr.-Ing. Friedrich-Wilhelm Bach

Inspection Certificate

acc. to EN 10 204 - 3.1C

Order No.: 851.0232
Issue: MP-TÜ / Bau-Be

Applicant: Helmut Klumpf Technische Chemie KG
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Date of application: 06th of April 2001
Your Reference No: Kl/el

Contents of the Application: Variuos Sample Testings acc. to the DIN EN ISO Standard 3452 Part 2 dated June 2000 of Penetrant Systems II and III acc. to the EN 571 Standard Part 1.

Test Objects:		
	BDR Red Penetrant	Batch 2110
	BRE Cleaner	Batch 2210
	BEA Developer	Batch 2310
	BDR-L Red Penetrant	Batch 2010
	BRE-2 Cleaner	Batch 2510
	BEA-W Developer	Batch 2810
	BEW Developer	Batch 2410
	BDR-GL Red Penetrant	Batch 1110
	BEA-N Developer	Batch 2915

PI-No.: 851.0232-1to9
Date of reciept:
Supplied by / ~~Sampling by~~ *: Parcel Service
~~Data * of the test(s):~~

Scope of the test report: 15 pages incl. cover sheet

The test results will exclusively refer to the test objects.

This test report - not even as an extract or an abbreviated version – must not be published without the written consent of the Material-prüfanstalt. * To be deleted if not applicable.

Subject:

The Materialprüfanstalt was instructed to examine nine objects, which had partly been sample-tested previously, in combination to five penetrant systems.
The individual combinations to those the nine objects were summarized to penetrant systems, are shown in the appendix A1 to A9 under the points "Sensitiveness".

Test Objects:

Penetrant:	BDR Red Penetrant	Batch 2110	Type II
	BDR-L Red Penetrant	Batch 2010	Type III
	BDR-GL Red Penetrant	Batch 1110	Type II

Exess Penetrant remover:

	BRE Cleaner	Batch 2210	Procedure C
	BRE-2 Cleaner	Batch 2510	Procedure C

Developer:	BEA Developer	Batch 2310	Style d
	BEA-W Developer	Batch 2810	Style c
	BEW Developer	Batch 2410	Style e
	BEA-N Developer	Batch 2915	Style d

Note : Furthermore water had been used as penetrant remover in an additional penetrant system. For more details see below (appendix A1 to A9 under the points "Sensitiveness").

Test Method:

The sample testing comprises a statement on the sensitivity of the penetrant system as well as of the individual properties of the penetrant, the remover, and the developer. Regarding the sensitivity and the individual properties, the test procedure will meet the stipulations indicated in the DIN EN ISO Standard 3452 Part 2, dated June, 2000.

Reference Block:

Reference blocks 1 acc. to the DIN EN ISO Standard 3452 Part 3 were used as test specimens.

The reference block 1 consists of one set of 4 plates provided with a nickel-chromium coating having the following thicknesses: 10µm, 20µm, 30µm, and 50 µm. The plates having the thicknesses of 10µm, 20µm, and 30µm will be used to determine the sensitivity of fluorescent penetrant systems (type I), whereas the sensitivity of dye penetrant systems will be determined using the plates having the thicknesses of 30µm and 50µm plates (type II/III). There are two numbers of the 30 µm plate recurrently used to test only one particular type of a penetrant (type I or II/III).

The plates of reference block 1 have a rectangular shape with the typical dimensions of 35 mm x 100 mm x 2 mm. Each plate is provided with a brass-based uniform nickel-chromium coating. The thicknesses of the nickel-chromium coating are 10µm, 20µm, 30µm, and 50 µm. By stretching the plates in their longitudinal direction, transverse cracks were produced on each plate. The ratio between the width and the depth of each crack is approximately 1 : 20.

Individual Properties:

2.1. Appearance

The appearance of the test specimen was compared with the appearance of the material of the sample.

3.2.2. Sensitivity

In order to determine the *sensitivity of a penetrant system using a dye penetrant (type II)* or a *fluorescent penetrant (type III)*, test plates of the reference block 1 acc. to the DIN EN ISO Standard 3452-3 were used which had specially been provided for this purpose. The number of the clearly visible and uninterrupted indications covering at least 80% of the width of the test plate were counted and compared to the number of indications likely to be achieved by means of the same reference block.

The relevant plates were treated according to the recommendations of the manufacturer. A development time of 10 min was chosen and a solvent-based developer (style d) was used.

Note: The sensitivity class determined within the scope of this sample test has to be indicated in the short description of the inspected penetrant system acc. to the EN 571 Standard Part 1, chapter 6.4

2.3. Specific Gravity:

The specific gravity was determined at 20°C acc. to the DIN Standard 51 757 using a Boots pyknometer. The value has been expressed in g/cm³. The error of measurement is 1% at a maximum.

2.4. Viscosity:

The viscosity was measured at 20°C acc. to the EN ISO Standard 3104 (using the Ubbelohde method). The value has been expressed in mm²/s. The error of measurement is 1% at a maximum.

2.5. Flash Point:

The flash point was determined in a closed cup acc. to Abel-Pensky (DIN Standard 51 755) or Pensky-Martens (DIN Standard 51758). The maximum error of measurement is 2% for flash points below 100°C, and the maximum error of measurement is 5% for flash points above 100°C.

2.6. Water Absorbency

At a temperature of 15°C (± 0.5°C), water was added to 20 ml test material and continuously stirred until the penetrant became turbid, thickened, or separated from the water. The added quantity of water was measured and its ratio to the final volume (water plus penetrant) was determined.

2.7. Corrosive Performance

The consistency of the penetrant with the materials to be tested was checked using the methods described in chapter 7.11 of the DIN EN ISO Standard 3452-2. Thereafter, the materials were tested for stains, pitting or any other signs of corrosion (in case of sample tests with a 10-fold enlargement).

2.8. Sulphur and Halogen Content

In its delivery state, the penetrant material was burnt using the Bomb-method (for developer) or the Wickbold method (for penetrant and remover).

The subsequent determination of the total sulphur content was carried out photometrically acc. to the ASTM Standard D 516-88, whereas the determination of the total content of halogen (chlorine and fluorine) was carried out acc. to the ASTM Standard E 165-91, i. e. with regard to the chlorine photometrically acc. to Appendix 2, Method A, and with regard to

the fluorine acc. to Appendix 3 using an ion specific electrode.

The method described shows a maximum error of measurement of ± 10 x 10^{-6} in case of a sulphur and halogen content of under 200 x 10^{-6} in liquids and a maximum error of measurement of ± 50 x 10^{-6} for solid matters (products in spray cans were prepared for testing acc. to the further regulations of the DIN EN ISO Standard 3452-2 chapter 7.12.1.)

2.9. Evaporation Residue

At a temperature of 15°C (± 1°C) above the boiling point of the product, a test specimen of the initial volume of 100 (± 1) ml was evaporated for 1 hour on a Petri dish (Ø 15 ± 1 cm), on a water bath, or in a heating cabinet, for 1 hour. Thereafter, the material mass of the residue was determined.

2.10. Portion of the Dry Matter

At a temperature of 15°C (± 1°C) above the boiling point of the product, a test specimen of the initial volume of 100 (± 1) g was evaporated for 1 hour on a Petri dish (Ø 15 ± 1 cm), on a water bath, or in a heating cabinet. Thereafter, the material mass of the residue was determined and defined as a percentage of the initial material mass.

2.11. Performance of the Developer

After having used the developer acc. to the recommendations of the manufacturer, the top coat was assessed for fineness, evenness, as well as reflecting and fluorescent qualities. Moreover, after having applied a suitable penetrant, an increase in the perceptibility of the indications was assessed.

2.12. Dispersivity

After stirring or shaking the liquid, the solid matters were assessed in wet developers on a water basis (suspended) or a solvent basis (non-aqueous) respectively for their quick dispersion. (Using aerosol cans with wet solvent-based developers, the content should have disperged after 30 s).

2.13. Specific Gravity of the Carrier Liquid

The specific gravity of the carrier liquid was determined at 20°C according to DIN 51 757 using a Boots pyknometer. The values have been expressed in g/cm³. The error of measurement is 1% at a maximum.

Investigation Results:

Please refer to pages A1 to A9 for the investigation results of the individual properties.

Summary:

In view of the investigation results, the requirements according to the DIN EN ISO Standard 3452, Part 2, Issue June 2000, have been met by the penetrant systems mentioned in the appendix A1 to A9.

The test objects

BDR Red Penetrant	Batch 2110
BRE Cleaner	Batch 2210
BEA Developer	Batch 2310
BDR-L Red Penetrant	Batch 2010
BRE-2 Cleaner	Batch 2510
BEA-W Developer	Batch 2810
BEW Developer	Batch 2410
BDR-GL Red Penetrant	Batch 1110
BEA-N Developer	Batch 2915

can be identified as "free of corrosive ingredients according to the DIN EN ISO Standard 3452, Part 2".

Hannover, 09th of October 2001

The Managing Director

i.V. RD Dr.-Ing. Basler

Materialprüfanstalt für Werkstoffe des Maschinenwesens und Kunststoffe MPA Hannover

The Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BDR Red Penetrant, Type II, Batch 2110

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Sensitivity	M/C	7.2	Penetrant system II C d: BDR, Batch 2110 BRE, Batch 2210 BEA; Batch 2310 **(at room temperature)**	Sensitivity level: 2
Sensitivity	M/C	7.2	Penetrant system II A d: BDR, Batch 2110 Water BEA; Batch 2310 **(at room temperature)**	Sensitivity level: 2
Sensitivity	M/C	7.2	Penetrant system II C d: BDR, Batch 2110 BRE-2, Batch 2510 BEA; Batch 2310 **(at 80°C)**	Sensitivity level: 2
Specific Gravity (DIN 51 757 at 20°C)	M/C	7.3	In case of the batch test ±5% of the sample test material at a maximum	M: 0,8775 g/cm^3
Viscositiy (EN ISO 3104 / 20°C)	M/C	7.4	In case of the batch test ±10% of the sample test material at a maximum	M: 3,27 mm^2/s
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 68 °C
Water Absorbency (only for Method A)	M	7.10	Water absorbency > 5%	Water absorbency: 5,1% Requirement met
Corrosive Performance	M/C	7.11	<u>For metals:</u> No stains, pitting, sings of corrosion (in case of "M*" with a 10-fold magnification) <u>For other materials:</u> no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,003 % by weight Cl: 0,009 % by weight F: 0,004 % by weight Requirements met

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of october 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BDR-L Red Penetrant, Type III, Batch 2010

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Sensitivity	M/C	7.2	Penetrant system III C d: BDR-L, Batch 2010 BRE-2, Batch 2510 BEA; Batch 2310 **(at room temperature)**	Sensitivity level: 2 (at visibly light) Sensitivity level: 2 (at UV-light)
Sensitivity	M/C	7.2	Penetrant system III A d: BDR-L, Batch 2010 Water BEA; Batch 2310 **(at room temperature)**	Sensitivity level: 2 (at visibly light) Sensitivity level: 2 (at UV-light)
Sensitivity	M/C	7.2	Penetrant system III A c: BDR-L, Batch 2010 Water BEA-W; Batch 2810 **(at room temperature)**	Sensitivity level: 2 (at visibly light) Sensitivity level: 2 (at UV-light)
Sensitivity	M/C	7.2	Penetrant system III C e: BDR-L, Batch 2010 BRE, Batch 2210 BEW; Batch 2410 **(at room temperature)**	Sensitivity level: 2 (at visibly light) Sensitivity level: 2 (at UV-light)
Specific Gravity (DIN 51 757 at 20°C)	M/C	7.3	In case of the batch test ±5% of the sample test material at a maximum	M: 0,9969 g/cm^3
Viscositiy (EN ISO 3104 / 20°C)	M/C	7.4	In case of the batch test ±10% of the sample test material at a maximum	M: 6,05 mm^2/s
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 94 °C
Water Absorbency (only for Method A)	M	7.10	Water absorbency > 5%	Water absorbency: 13% Requirement met
Corrosive Performance	M/C	7.11	<u>For metals:</u> No stains, pitting, sings of corrosion (in case of "M*" with a 10-fold magnification) <u>For other materials:</u> no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,001 % by weight Cl: <0,001 % by weight F: <0,001 % by weight Requirements met

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of october 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BDR-GL Red Penetrant, Type II, Batch 1110

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Sensitivity	M/C	7.2	Penetrant system II A d: BDR-GL, Batch 1110 Water BEA-N; Batch 2915 **(at room temperature)**	Sensitivity level: 2
Specific Gravity (DIN 51 757 at 20°C)	M/C	7.3	In case of the batch test ±5% of the sample test material at a maximum	M: 0,8097 g/cm^3
Viscositiy (EN ISO 3104 / 20°C)	M/C	7.4	In case of the batch test ±10% of the sample test material at a maximum	M: 2,96 mm^2/s
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 23 °C
Water Absorbency (only for Method A)	M	7.10	Water absorbency > 5%	Water absorbency: > 100% Requirement met
Corrosive Performance	M/C	7.11	For metals: No stains, pitting, sings of corrosion (in case of "M*" with a 10-fold magnification) For other materials: no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,001 % by weight Cl: <0,001 % by weight F: <0,001 % by weight Requirements met

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of october 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Prüfmittel: BRE, Batch 2210, Excess Penetrant Remover

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Sensitivity	M/C	7.2	Penetrant system II C d: BDR, Batch 2110 BRE, Batch 2210 BEA; Batch 2310 **(at room temperature)**	Sensitivity level: 2
Sensitivity	M/C	7.2	Penetrant system II C e: BDR-L, Batch 2010 BRE, Batch 2210 BEW; Batch 2410 **(at room temperature)**	Sensitivity level: 2 (at visibly light) Sensitivity level: 2 (at UV-light)
Specific Gravity (DIN 51 757 at 20°C)	M/C	7.3	In case of the batch test ±5% of the sample test material at a maximum	M: 0,8053 g/cm^3
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: -4 °C
Corrosive Performance	M/C	7.11	<u>For metals:</u> No stains, pitting, sings of corrosion (in case of "M*" with a 10-fold magnification) <u>For other materials:</u> no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,002 % by weight Cl: 0,001 % by weight F: <0,001 % by weight Requirements met
Evaporation Residue (only for Methods C/E)	M/C	7.13	Remaining material mass < 5 mg	2 mg Requirement met

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of October 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Prüfmittel: BRE-2, Batch 2510, Excess Penetrant Remover

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Sensitivity	M/C	7.2	Penetrant system II C d: BDR, Batch 2110 BRE-2, Batch 2510 BEA; Batch 2310 **(at 80°C)**	Sensitivity level: 2
Sensitivity	M/C	7.2	Penetrant system III C d: BDR-L, Batch 2010 BRE-2, Batch 2510 BEA; Batch 2310 **(at room temperature)**	Sensitivity level: 2 (at visibly light) Sensitivity level: 2 (at UV-light)
Specific Gravity (DIN 51 757 at 20°C)	M/C	7.3	In case of the batch test ±5% of the sample test material at a maximum	M: 0,7992 g/cm^3
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 14 °C
Corrosive Performance	M/C	7.11	<u>For metals:</u> No stains, pitting, sings of corrosion (in case of "M*" with a 10-fold magnification) <u>For other materials:</u> no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,002 % by weight Cl: 0,002 % by weight F: <0,001 % by weight Requirements met
Evaporation Residue (only for Methods C/E)	M/C	7.13	Remaining material mass < 5 mg	3 mg Requirement met

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
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Hannover, 09th of October 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BEA Developer, Batch 2310, Style d

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 12 °C
Corrosive Performance	M/C	7.11	For metals: No stains, pitting, sings of corrosion (in case of "M" with a 10-fold magnification) For other materials: no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content $<200x10^{-6}$ (<0,02 % by weight) - Halogen content (Cl/F) $<200x10^{-6}$ (<0,02 % by weight)	S: 0,005 % by weight Cl: 0,001 % by weight F: 0,006 % by weight Requirements met
Portion of the Dry Matter (only for Form d)	M/C	7.13	In case of the batch test ±10% of the sample test result	M:12,06 g
Peformance of the Developer (except for Form e)	M/C	7.15	Fine, even, non-reflecting or fluorescent top coat /increase in the perceptibility of the indications	Requirement with regard to the top coat the indications are magnified
Dispersivity (only for Forms c and d)	M/C	7.16	Solid matters should quickly redisperge upon shaking (in case of aerosol cans after 30 s at the latest)	Requirement met
Specific Gravity of the Carrier Liquid (only for Form d)	M/C	7.17	In case of the batch test ±5% of the sample test material at a maximum	M: 0,7867 g/cm³

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of October 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BEA-W Developer, Batch 2810, Style c

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Corrosive Performance	M/C	7.11	For metals: No stains, pitting, sings of corrosion (in case of "M" with a 10-fold magnification) For other materials: no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,010 % by weight Cl: 0,003 % by weight F: 0,003 % by weight Requirements met
Peformance of the Developer (except for Form e)	M/C	7.15	Fine, even, non-reflecting or fluorescent top coat /increase in the perceptibility of the indications	Requirement with regard to the top coat the indications are magnified
Dispersivity (only for Forms c and d)	M/C	7.16	Solid matters should quickly redisperge upon shaking (in case of aerosol cans after 30 s at the latest)	Requirement met

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of October 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BEW Developer, Batch 2410, Style e

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 12°C
Corrosive Performance	M/C	7.11	For metals: No stains, pitting, sings of corrosion (in case of "M" with a 10-fold magnification) For other materials: no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,009 % by weight Cl: 0,002 % by weight F: 0,001 % by weight Requirements met
Portion of the Dry Matter (only for Form d)	M/C	7.13	In case of the batch test ±10% of the sample test result	M: 11,58 g
Peformance of the Developer (except for Form e)	M/C	7.15	Fine, even, non-reflecting or fluorescent top coat /increase in the perceptibility of the indications	Requirement with regard to the top coat the indications are magnified
Dispersivity (only for Forms c and d)	M/C	7.16	Solid matters should quickly redisperge upon shaking (in case of aerosol cans after 30 s at the latest)	Requirement met
Specific Gravity of the Carrier Liquid (only for Form d)	M/C	7.17	In case of the batch test ±5% of the sample test material at a maximum	M: 0,7963 g/cm^3

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of October 2001
Specialist in Charge

Dipl.-Ing. H. Berger

MPA Hannover

Test Material: BEA-N Developer, Batch 2915, Style d

Individual Quality	for*	Determination acc. to the DIN EN ISO 3452-2, Section:	Requirements	Results
Flash Point in a Closed Cup (DIN 51 755 / 51 758)	M/C	7.5	In case of the batch test 5°C below the sample test material at a maximum	M: 24 °C
Corrosive Performance	M/C	7.11	For metals: No stains, pitting, sings of corrosion (in case of "M" with a 10-fold magnification) For other materials: no signs of erosion	Requirement met
Sulphur and halogen content**. (without evaporation)	M/C	7.12	- Sulphur content <200x10^{-6} (<0,02 % by weight) - Halogen content (Cl/F) <200x10^{-6} (<0,02 % by weight)	S: 0,004% by weight Cl: 0,003 % by weight F: 0,003 % by weight Requirements met
Portion of the Dry Matter (only for Form d)	M/C	7.13	In case of the batch test ±10% of the sample test result	M: 14,2 g
Peformance of the Developer (except for Form e)	M/C	7.15	Fine, even, non-reflecting or fluorescent top coat /increase in the perceptibility of the indications	Requirement with regard to the top coat the indications are magnified
Dispersivity (only for Forms c and d)	M/C	7.16	Solid matters should quickly redisperge upon shaking (in case of aerosol cans after 30 s at the latest)	Requirement met
Specific Gravity of the Carrier Liquid (only for Form d)	M/C	7.17	In case of the batch test ±5% of the sample test material at a maximum	M: 0,8035 g/cm^3

* required for batch testing (C), sample testing (M), sample and batch testing (M/C)
** only required for products identified as having "a low sulphur and halogen content"

Hannover, 09th of October 2001
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Dipl.-Ing. H. Berger