

Schmincke

MUSSINI[®]

Finest artists' resin-oil-colours – Series 10

The artists' natural resin-oil-colours
which are unique throughout the world

Based on old masters' formulations

*101 colour tones offering the
ultimate in brilliance and purity*

Including 64 single-pigment colours

42 shades are exquisite translucent colours

*Premium artists' pigments in the
highest concentrations*

Maximum possible light-fastness

Balanced drying process

Tension-free and durable colour-layers



are unique artists' colours produced by means of a particularly sophisticated manufacturing process to meet the very highest requirements. It goes without saying that they contain only the best traditional artists' pigments together with several outstanding newly developed artists' pigments, each in the highest possible concentrations and in pure form.

This results in **artists' colours of the utmost brilliance and purity**, which also mix more readily than premixed colour tones based on a limited selection of pigments.

Schmincke employs more than 250 different artists' pigments, almost 100 of which are contained in the MUSSINI® range.

The old masters of past centuries could only use a very limited range of good pigments. They would have been delighted at some of the many new artists' pigments which have now been developed, such as bismuth vanadate, spinel pigments, rutile pigments, diketo pyrrolo-pyrrole and perylene. They add particularly light-fast nuances to the professional spectrum available to today's artists.

Thanks to the particularly extensive range of glaze pigments, their fine processing and the specially adapted formulations, **MUSSINI®** provides for fine glaze colouring with outstanding brilliance, luminosity and light depth.

MUSSINI® – unique throughout the world!

The uniqueness of these finest professional artists' colours stems in particular from the adoption of the old masters' practice of combining selected artists' oil with natural resin. Masters back in the days of the late Middle Ages were already using indigenous European resins, such as mastic from the Greek island of Chios and copal.

Natural resins were also used to enhance colour brilliance and the impression of depth in Byzantine art during the first centuries A.D. Throughout the long history of the development of oil colouring techniques a large number of very special binder formulations have been tested, and this fund of knowledge has been applied in evolving the **MUSSINI®** range.

On the basis of many years of scientific experience in the field of artists' colours, Schmincke continues to use a broad and diverse scope of artists' oils, which it combines with the most suitable natural dammar resin from Palembang, Indonesia. The amount of dammar resin which is added in colloidal solution depends on the oil requirements of the pigment concerned.



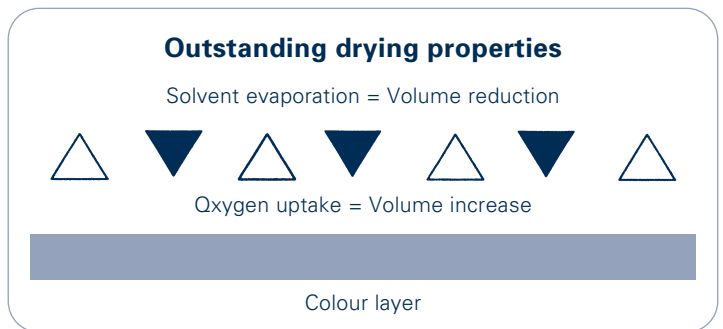
Colour-charts from the 1930s

The use of different variants of linseed oil purified by means of highly sophisticated processes also predominates in the **MUSSINI®** artists' resin-oil-colours.

However, other artists' oils, such as safflower oil, poppy-seed oil and sunflower oil, also possess properties beneficial to colouring applications which – when optimised with the requisite expertise – further enhance the formulations. So-called auxiliary agents and additives are also used, though in minimal and individually dosed amounts. These provide for the consistency and fineness which is required for colouring applications and ensure a harmonious drying process for the oil colours. Pigment and a linseed oil are simply not sufficient to make a good artists' oil colour.

Schmincke's research efforts are always aimed at eliciting the full brilliant potential of the artists' pigments in all their individual variations while at the same time maintaining a harmonious overall range. This offers the artist absolute freedom to combine and mix the artists' colours of his choice.

What distinguishes the unique **MUSSINI®** natural resin-oil-colours from the best and finest "pure" (resin-free) artists' colours, such as *Norma*® PROFESSIONAL or other comparable fine artists' oil colours?



MUSSINI® dries more evenly from inside, too, as a result of the largely self-compensating chemical and physical drying process: The increase in volume resulting from the chemical drying process which begins on the surface via oxygen uptake is largely compensated by the solvent content in the dammar solution which evaporates from inside.

The microscopic evaporation pores enable oxygen to penetrate more effectively into the inner layers, thus providing for more even drying of the surface and inner layers. This, in turn, reduces the danger of wrinkling and surface tension during the drying process. The dammar fractions which are finely incorporated in the colloidal solutions are enclosed by the drying artists' oils and enhance the brilliance of the colour layers.



Works by old masters which have been preserved in far better condition than many works by more recent Impressionist and Expressionist masters attest to the durability of such resin-oil artists' colours.

Before the tube was invented, resin-oil-colours sank into obscurity because they did not lend themselves to transportation in leather and hide pouches. The founders of the Schmincke company, the chemists Hermann Schmincke and Josef Horadam were aware of the almost forgotten traditional resin-oil colour formulations when they decided in 1881 not only to import raw materials and manufacture pigments (in particular ultramarine) for colouring, but also to produce prime quality artists' colours. They found a guardian of the old masters' formulations in Professor Cesare Mussini, who only worked in a studio at the Academy of Florence.

After Cesare Mussini's death, the formulations were sold to Hermann Schmincke and Josef Horadam, thereby enabling the company H. Schmincke & Co., established 1881, to quickly advance to the position of the leading German artists' colour manufacturer of the time.

MUSSINI® and **Norma®**
PROFESSIONAL

Before the turn of the century, when Josef Horadam obtained his European patents for **HORADAM®** finest artists' water-colours, Schmincke developed the standardised finest resin-free **Norma®** PROFESSIONAL artists' oil colours from small special assortments for academy professors. Today, they represent a professional standard for finest artists' oil colours throughout the world – surpassed only by the unique **MUSSINI®** range.

MUSSINI® symbols and testing

Color Index and Pigment-Names

The **Color Index System** is an international standard to denominate dyes and pigments. In the C.I. a combination of letters and numbers indicate the colour category (C.I.-Name) i.e.

PO 20 means Pigment Orange 20. This is followed by a 5-digit colour number which identifies the pigment for the chemist. We rather use instead of this number the clear chemical name of the pigment – i.e. instead of PO 20, 77203 we write PO 20 Cadmium Sulfoselenide.

The groups of Color Index names are:

PW = Pigment white	PB = Pigment blue
PY = Pigment yellow	PG = Pigment green
PO = Pigment orange	PBr = Pigment brown
PR = Pigment red	PBk = Pigment black
PV = Pigment violet	

Opacity and glazing properties

The opacity of a pigmented colour is not only depending on the thickness of the colour application but also on the distribution and size of the pigments as well as the height of the refractive index of the applied colour. All colours have been submitted to the same testing method: standardized application on black and white striped saturated base. This allows a classification with the 4 Schmincke squares, which are now also being used by some other producers:

<input type="checkbox"/> transparent	<input type="checkbox"/> semi-transparent
<input checked="" type="checkbox"/> semi-opaque	<input checked="" type="checkbox"/> opaque

Lightfastness

This describes the durability of a colour in daylight. The lightfastness therefore is not only referring to the pigment, but always to the total system – pigment, binding medium, additives. A number of influencing factors play a role too, like intensity of sunlight, temperature, moisture, oxygen or gas content of the air. The importance and combination of the various influencing factors vary depending on daytime and season as well as on geographic factors. **We test our colours according to the German DIN Standard 16525.** In connection with the textile industry we use as an objective scale the so called **blue wool scale**.

This testing method consists of 8 wool stripes tinted with different lightfast dyes. The lightfastness is expressed in numbers. 1 means very low, 8 is the

highest lightfastness according to the measurable changes of the 8 wool stripes in a given time. We translate those findings into our 5-star system. This allows a more precise differentiation especially in the more lightfast categories than with the usual 3 or 4 steps used by other producers.

Blue wool scale Stars

8	★★★★★	extremely lightfast
7	★★★★	good lightfastness
5 + 6	★★★	lightfast
4	★★	limited lightfastness
3	★	less lightfast
1 + 2	–	not lightfast

Lightfast colour systems require very long testing periods under natural light. For the testing of pigmented colour systems we therefore also use intensive exposure instruments to speed up this process. This does not only allow faster classification, but also permits to obtain reproducible results independent of location, climate and time. Such testing instruments contain Xenon light, which are adapted to daylight by using filters. Longterm exposure on the roof represents additional testing.



tube 15 ml – 101 colours



tube 35 ml – 101 colours



tube 120 ml – 10 colours

MUSSINI® – Series 10

① Price group

This brochure has been printed in a 8-colour offset print – that means tones are only nearly identical with original colours.

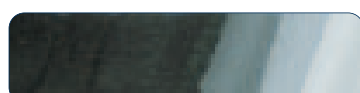
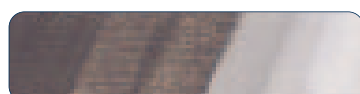
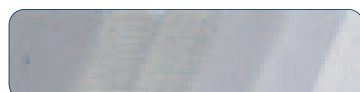
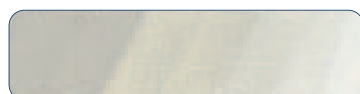
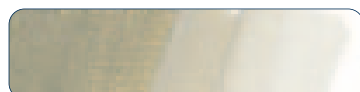
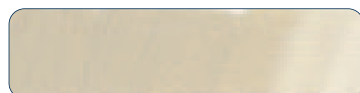
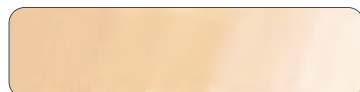
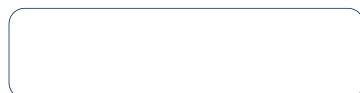
Due to steady efforts for further improvements and changes in the raw material and pigment field slight colour deviations are possible. Differences in wording are possible between printed colour charts and labels according to differing printing dates.

- ★★★★★ extremely lightfast
- ★★★★ good lightfastness
- ★★★ lightfast
- ★★ limited lightfastness
- ★ less lightfast

- transparent
- semi-transparent
- semi-opaque
- opaque

101 colours are available in tube 06 (15 ml) and tube 09 (35 ml), 10 colours including 2 whites also in tube 12 (120 ml).

48 colours ● – 48 colour assortment MUSSINI®
10 colours ○ – available in tube 120 ml MUSSINI®



No.	Name	Pigment(s)	C.I.-No.	Description
102	Zinc white	Zinc oxide	PW 4	Pure white, semi-opaque in relation to titanium white and bluer. Ideal for lightening multicoloured shades.
②	★★★★★	<input checked="" type="checkbox"/>	● ○	
103	Titanium opaque white	Titanium dioxide Zinc oxide	PW 6 PW 4	Pure, brilliant white. Possesses the highest opacity and tinting power of all white colours.
①	★★★★★	<input checked="" type="checkbox"/>	● ○	
105	Translucent white	Zinc oxide Titanium dioxide	PW 4 PW 6	Titanium white with ultrafine primary grain, providing a semi-transparent effect. Forms fine white haze effects which display a milky blue shimmer in glancing light. An ideal colour to create atmospheric perspectives.
⑤	★★★★★	<input type="checkbox"/>		
206	Flesh tint	Zinc oxide Hydrated iron oxide Red iron oxide	PW 4 PY 42 PR 101	Warm, reddish flesh tone. Ideal base for mixing other flesh tones.
②	★★★★★	<input checked="" type="checkbox"/>	○	
787	Brownish grey 1	Zinc oxide Titanium dioxide Disazopigment Ultramarine violet	PW 4 PW 6 PY 155 PV 15	Opaque grey with delicate red tinge, without black pigments.
②	★★★★★	<input checked="" type="checkbox"/>		
788	Brownish grey 2	Zinc oxide Phthalocyanine green Hydrated iron oxide Zinc iron chromium	PW 4 PG 36 PY 42 PBr 33	Semi-opaque grey with green tinge, without black pigment.
②	★★★★★	<input checked="" type="checkbox"/>		
784	Bluish grey 1	Zinc oxide Titanium dioxide Hydrated iron oxide Graphite	PW 4 PW 6 PY 42 PBk 10	Light stone grey, a "neutral" grey for the beholder.
②	★★★★★	<input checked="" type="checkbox"/>		
785	Bluish grey 2	Zinc oxide Titanium dioxide Graphite	PW 4 PW 6 PBk 10	Opaque bluish grey, similar to slate grey.
②	★★★★★	<input checked="" type="checkbox"/>		
790	Shade grey	Hydrated chromium oxide Hydrated iron oxide Black iron oxide Zinc oxide	PG 18 PY 42 PBk 11 PW 4	Greenish, semi-transparent grey. Specially developed to produce the Italian masters' famous "sfumato" – a fine grey mist which was applied to portraits, for example, in order to lend them a softer look.
②	★★★★★	<input type="checkbox"/>	●	
792	Dove grey	Red iron oxide Zinc oxide Black iron oxide	PR 101 PW 4 PBk 11	Pleasant, warm dark grey with a "hint" of violet.
②	★★★★★	<input checked="" type="checkbox"/>		
782	Schmincke Payne's grey	Ultramarine blue Red iron oxide Lamp black	PB 29 PR 101 PBk 7	Traditional Schmincke grey colour. Very similar to a dark neutral grey.
③	★★★★★	<input type="checkbox"/>	●	
781	Lamp black	Lamp black	PBk 7	Particularly fine gas black with maximum depth of colour. This provides for high intensity and tinting power.
①	★★★★★	<input checked="" type="checkbox"/>	●	
780	Ivory black	Carbonized bones of animals	PBk 9	Traditional deep black, opaque and lightfast. Formerly obtained from charred ivory pieces, now produced via the dry distillation of degreased bones.
①	★★★★★	<input checked="" type="checkbox"/>	○	
783	Mineral black	Copper chromite (Black spinel)	PBk 28	"Cool", inorganic black with a gentle tinge of charcoal. Produces a blue-tinged grey when mixed with white.
①	★★★★★	<input checked="" type="checkbox"/>	●	
779	Atrament black	Perylene	PBk 31	Modern organic black pigment. Very deep in full tone, close to a Russian green in glazes. Produces green-tinged grey tones when mixed with white. Atrament was the name for a very cold black in Roman times.
②	★★★★★	<input type="checkbox"/>	●	



No.	Name	Pigment(s)	C.I.-No.	Description
236	Translucent yellow oxide ③ ★★★★★ □ ●	Hydrated iron oxide	PY 42	Inorganic yellow which produces a very fine glaze effect; the tone is roughly similar to a brilliant yellow ochre or a very yellow Sienna.



232	Naples yellow deep ④ ★★★★★ ■	Chromium-antimony-titanium yellow	PBr 24	Warm, opaque, almost ochre-coloured yellow. Previously produced from toxic lead pigment, now an imitation with inorganic, highly light-fast pigments.
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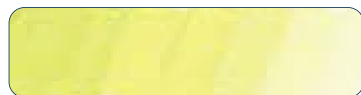
231	Naples yellow light ④ ★★★★★ ■	Chromium-antimony-titanium yellow Rutil-nickel-tin-titanium	PBr 24 PY 53	The lighter and yellow variant of dark Naples yellow.
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224	Brilliant yellow ① ★★★★★ ☑	Zinc oxide Chromium-antimony-titanium yellow Rutil-nickel-tin-titanium	PW 4 PBr 24 PY 53	Traditional colour produced from inorganic pigments. Very light, almost beige yellow.
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207	Medieval yellow ③ ★★★★★ ■ ●	Zinc oxide Titanium dioxide Rutil-nickel-tin-titanium	PW 4 PW 6 PY 53	Pale, greenish, opaque yellow which imitates the original with inorganic pigments. Medieval yellow was the brightest yellow used by the Medieval painters.
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208	Yellowish green Ural ④ ★★★★★ ■ ●	Rutil (Ni, Ti, Sb) Spinel (Co, Zn)	PY 53 PG 19	Light, delicate greenish yellow which cannot be obtained by mixing, made from an inorganic pigment.
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216	Lemon yellow ③ ★★★★★ ☑ ● ○	Monoazoyellow	PY 3	The classic brilliant, green-tinged yellow in oil colouring. Mixes well with glaze cyan; produces clear, semi-transparent green shades.
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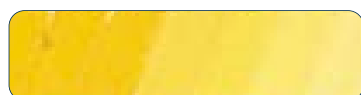
220	Vanadium yellow light ⑥ ★★★★★ ■	Bismuth vanadate pigment	PY 184	Contains a modern, opaque pigment with high tinting power. Produces a brilliant, slightly green-tinted yellow. A cadmium-free alternative to cadmium yellow. Mixes well with glaze cyan, produces clear, brilliant, opaque green shades.
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227	Cadmium yellow 1 light ⑤ ★★★★★ ■	Cadmium-zinc-sulphide	PY 35	Brilliant opaque yellow with high tinting power.
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209	Cadmium yellow tone ④ ★★★★★ ☑ ●	Disazopigment	PY 155	Imitation of cadmium yellow with inorganic pigment. High tinting power, semi-opaque, cadmium-free.
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221	Vanadium yellow deep ⑤ ★★★★★ ■	Bismuth vanadate pigment	PY 184	Contains a modern, opaque pigment with high tinting power. Produces a reddish, slightly dull yellow. A chrome-free alternative to medium chrome yellow.
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228	Cadmium yellow 2 middle ⑤ ★★★★★ ■	Cadmium-zinc-sulphide	PY 35	Rich, red-tinted yellow with good opacity and tinting power.
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238	Translucent yellow ③ ★★★★★ □ ●	Azo-nickel complex	PY 150	Lemon yellow when applied in a thin layer to produce a fine glaze. Dark, almost ochre-coloured yellow when applied as an opaque layer.
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223	Indian yellow ③ ★★★★★ ☐ ●	Metal complex	PY 153	In former times, Indian yellow was produced in India from the urine of cows which were fed with mango leaves. This method of production is prohibited today, because it is cruel. Our Indian yellow is an imitation of the classic translucent orange-yellow colour.
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229	Cadmium yellow 3 deep ⑤ ★★★★★ ■	Cadmium-sulphoselenide	PO 20	Brilliant yellow-orange with high opacity and tinting power.
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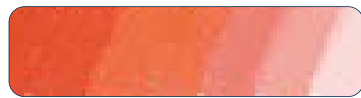
230	Cadmium orange ⑥ ★★★★★ ■	Cadmium-sulphoselenide	PO 20	Brilliant orange with high opacity and tinting power.
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243	Chrome orange tone ④ ★★★★★ ■	Pyrazolochinazolone	PO 67	Imitation of the toxic chrome orange with a non-toxic, modern, opaque organic pigment with high tinting power. A very deep, brilliantly fiery orange.
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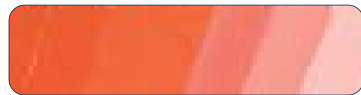
No.	Name	Pigment(s)	C.I.-No.	Description
239	Translucent orange ③ ★★★★★ <input type="checkbox"/> ●	Diketo-Pyrrolo-Pyrrol	PO 71	Finely translucent dark orange shade with pronounced red tinge. Ideal for mixing to produce very light red shades.



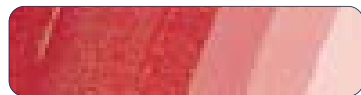
340	Brilliant scarlet ④ ★★★★★ <input checked="" type="checkbox"/> ●	Disazo condensation	PR 242	In former times, scarlet was a much sought-after colour which was obtained from a coccid which lives in the lermes oak. Today, the name "scarlet" is given to a brilliant red with a very pronounced yellow tinge.
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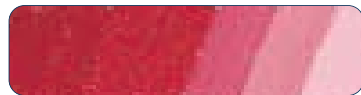
356	Cadmium red light ⑥ ★★★★★ ■	Cadmium-sulphoselenide	PR 108/ PW 21	Pure opaque red with high tinting power. Similar to vermilion red.
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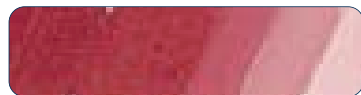
364	Vermilion red tone ③ ★★★★★ ■ ● ○	Diketo-Pyrrolo-Pyrrol	PR 255	Classic red. As real cinnabar is toxic and possesses poor light-fastness, this colour has been imitated with a modern, organic pigment. Brilliant, opaque red, bluer than scarlet, yellower than carmine.
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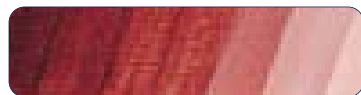
341	Cadmium red middle ⑦ ★★★★★ ■	Cadmium-sulphoselenide	PR 108/ PW 21	Rich opaque red with high tinting power. Darker and bluer than light cadmium red.
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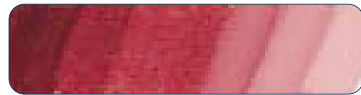
342	Cadmium red tone ⑥ ★★★★★ ■	DPP Quinacridone	PR 242 PV 19	Imitation of medium cadmium red with organic pigments. High tinting power, opaque, cadmium-free.
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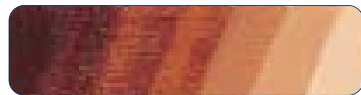
357	Cadmium red deep ⑥ ★★★★★ ■	Cadmium-sulphoselenide	PR 108 PW 21	Very deep red with a blue tinge. High opacity and tinting power.
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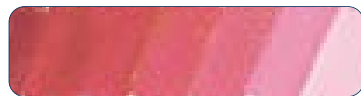
343	Madder root tone ③ ★★★★★ <input type="checkbox"/> ●	Quinacridone	PR 206	Finely translucent dark, brownish red. Comparable with very red mahogany.
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353	Florentine red ③ ★★★★★ <input type="checkbox"/> ●	Perylene	PR 179	Perylenes are among the most light-fast organic pigments. A translucent, cold, dark red with a slight brown tint. Florentine red is based on the old Florentine colour which was obtained from Brazil wood and was similar in colour.
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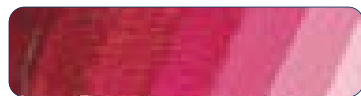
365	Translucent red oxide ③ ★★★★★ <input type="checkbox"/> ●	Red iron oxide	PR 101	Warm, finely translucent reddish brown, commonly used today to imitate burnt Sienna.
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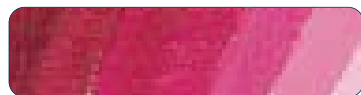
344	Madder lake brilliant ④ ★★★★★ <input checked="" type="checkbox"/> ●	Quinacridone	PR 209	Translucent, very bright deep red. With the exception of "Alizarin madder", our MUSSINI® "madder" colours are standard tone designations. They are simulated today with highly light-fast, translucent, modern organic pigments.
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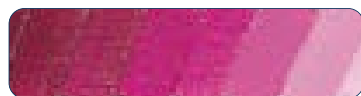
347	Alizarin madder lake ④ ★★★ <input type="checkbox"/>	Anthraquinone, AL	PR 83:1	Cold, rich dark red, produces good glaze effects. Originally an alumina-based colour from alizarin, the main dyestuff contained in the madder plant. Since 1870, alizarin has been obtained and processed into colour by synthetic means.
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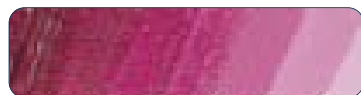
346	Madder lake dark ④ ★★★★★ <input type="checkbox"/>	Diketo-Pyrrolo-Pyrrol	PR 254/ PV 42	Brilliant dark red with a blue tinge. Lighter than alizarin madder colour, produces a good glaze effect.
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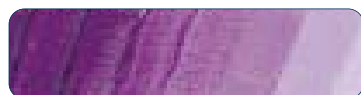
358	Carmine ④ ★★★★★ <input checked="" type="checkbox"/> ●	Diketo-Pyrrolo-Pyrrol Quinacridone	PR 254/ PV 42/ PV 19	A standard tone designation, derived directly from the Latin name for the cochineal louse. Brilliant red with blue tinge, semi-translucent.
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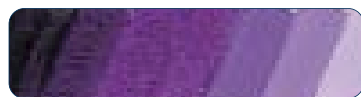
363	Translucent magenta ④ ★★★★★ <input type="checkbox"/> ●	Quinacridone rose	PR 122	Corresponds to the basic colour magenta in subtractive colour mixture, produces a very good glaze effect. Produces brilliant, translucent violet shades when mixed with glaze cyan.
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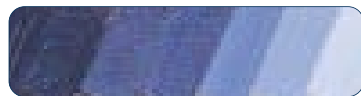
366	Caesar purple ③ ★★★★★ <input type="checkbox"/> ●	Quinacridone	PV 19	Finely translucent colour, bluer than magenta. In ancient times, purple was obtained by means of a complicated process from the gland of a snail, and was much sought-after as a particularly valuable dye for artists' colours.
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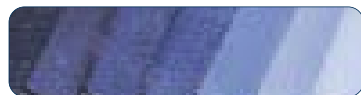
482	Cobalt violet ⑧ ★★★★★ <input checked="" type="checkbox"/>	Cobalt phosphate	PV 14	Very pure violet with a reddish tinge.
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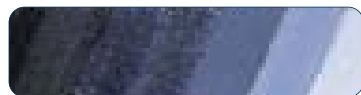
No.	Name	Pigment(s)	C.I.-No.	Description
473	Translucent violet ③ ★★★★★ □ ●	Dioxazine	PV 23	Very finely translucent, brilliant bluish violet with particularly high tinting power.



495	Byzantine blue ③ ★★★★★ ■ ●	Indanthrone blue Black iron oxide Zinc oxide	PB 60 PBk 11 PW 4	Dark black blue which retains its blue character. Often appears in Byzantine frescos. In former times it was obtained primarily from azurite and a small fraction of coal. Composition of modern, light-fast pigments.
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494	Indigo tone ① ★★★★★ ▣ ●	Quinacridone Indanthrone blue Graphite	PV 19 PB 60 PBk 10	Imitation of indigo with very high tinting power and improved light-fastness. Also comparable to midnight blue on account of its depth of colour.
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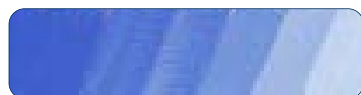
478	Indigo ② ★★★★★ ■	Synthetical indigo	PB 66	Deep blue with very high tinting power. This colour used to be obtained from the indigo plant or woad; today, indigo is produced by synthetic means.
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493	Delft blue ③ ★★★★★ □	Indanthrone blue	PB 60	Finely translucent dark blue shade with a red tinge.
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492	Ultramarine blue deep ② ★★★★★ □ ○	Ultramarine blue	PB 29	Finely translucent, very pure blue with a red tinge. In the Middle Ages, ultramarine was obtained from the semi-precious stone lapis lazuli. Not until the first third of the 19th century was it possible to produce ultramarine by synthetic means.
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491	Ultramarine blue light ② ★★★★★ □ ●	Ultramarine blue	PB 29	Lighter than dark ultramarine and with a slightly less pronounced red tinge.
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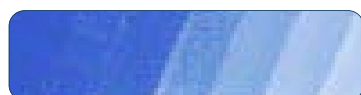
481	Cobalt blue deep ⑥ ★★★★★ ▣	Cobalt-zinc-silicon oxide	PB 74	Semi-opaque blue with a subtle red tinge. Genuine cobalt blue was discovered in the 18th century, and was first used in colouring at the beginning of the 19th century. With cobalt blue, it was now possible to colour a radiant blue sky.
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480	Cobalt blue light ⑤ ★★★★★ ▣	Cobalt aluminate blue spinel	PB 28	Semi-opaque, clear blue with a slight red tinge.
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479	Cobalt blue tone ① ★★★★★ ■ ●	Ultramarine blue Phthalocyanine blue Zinc oxide	PB 29 PB 15:6 PW 4	Imitation of dark cobalt blue with ultramarine. Opaque, with high tinting power, slightly greener and duller.
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496	Translucent Oriental blue ③ ★★★★★ □ ●	Phthalocyanine blue	PB 15:6	Finely translucent, brilliant deep blue, the phthalocyanine pigment with the most pronounced red tint. These pigments were discovered in the 1920s and are now one of the most important and most stable organic pigments.
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490	Prussian/Paris blue ① ★★★★★ ▣ ●	Iron-cyan-blue	PB 27	Traditional colour. Black blue with very high tinting power. Its real shade is only revealed in glazes. Has a tendency towards bronzing on account of its high pigmentation.
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485	Royal blue light ② ★★★★★ ■	Zinc oxide Titanium dioxide Cobalt pigment combination	PW 4 PW 6 PB 36	The classical royal blue was introduced under King Louis XIV of France, based on a cobalt pigment. The king's blue was light, corresponding roughly to a green-tinged sky blue, similar to our light royal blue.
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486	Royal blue deep ④ ★★★ ■ ●	Zinc oxide Titanium dioxide Ultramarine blue Phthalocyanine blue	PW 4 PW 6 PB 29 PB 15:3	The possibility of producing ultramarine synthetically led to an increase in variations of the royal blue colour. Dark royal blue is a brilliant medium blue produced with ultramarine.
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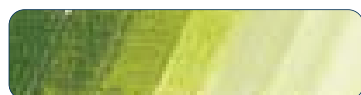
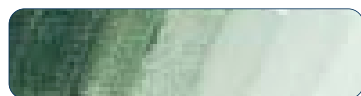
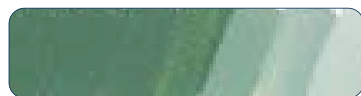
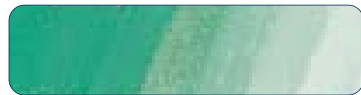
475	Cobalt-cerulean blue ⑧ ★★★★★ ▣	Cobalt-tin-oxide	PB 35	Semi-opaque cobalt blue shade with a greenish tendency.
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477	Translucent cyan ③ ★★★★★ □ ●	Phthalocyanine blue	PB 15:3	Corresponds to the basic colour cyan in the subtractive colour mixture; very good glaze effect. Produces brilliant, translucent violet shades when mixed with magenta and brilliant, semi-translucent green shades when mixed with lemon yellow.
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487	Manganese cerulean blue ⑤ ★★★★★ ▣	Zinc oxide Phthalocyanine blue	PW 4 PB 15:3 PB 16	Brilliant, semi-translucent blue with a turquoise tinge. An imitation of toxic manganese blue using the non-toxic organic phthalocyanine pigments.
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No.	Name	Pigment(s)	C.I.-No.	Description
497	Translucent turquoise ③ ★★★★★ ◻ ●	Phthalocyanine blue	PB 16	Very finely translucent, brilliant turquoise blue; the phthalocyanine pigment with the most pronounced green tinge.
498	Cobalt turquoise ⑦ ★★★★★ ■	Cobalt-lithium-titanium-zinc-oxide	PG 50	Opaque, highly light-fast turquoise with high tinting power and extreme brilliance of colour.
511	Chrome green tone deep ③ ★★★★★ ■ ●	Cadmium-sulphoselenide Cadmium-zinc-sulphide Phthalocyanine blue	PO 20 PY 35 PW 21 PB 15:3	Opaque, deep and pure bluish green with very high tinting power. Formerly produced from chrome yellow and Berlin blue, now imitated with non-toxic pigments.
536	Turmaline green ⑤ ★★★★★ ■	Cobalt-chromium oxide-spinel	PG 26	Dark, rich bluish green, similar to the semi-precious stone tourmaline, whose shades range from yellowish green and olive green to bluish green.
512	Chromium oxide green brilliant ④ ★★★★★ ◻	Hydrated chromium oxide green	PG 18	Fiery, semi-translucent green with a blue tinge, also commonly referred to as emerald green. This colour has been available to artists since the mid-19th century, when it replaced the copper colours which were toxic at the time.
518	Helio green deep ③ ★★★★★ ◻ ●	Phthalocyanine green	PG 7	Finely translucent, brilliant, blue-tinged, rich green which cannot be produced by mixing.
521	Helio green light ③ ★★★★★ ◻	Phthalocyanine green	PG 36	Lighter variation with a more pronounced yellow tinge than dark helio translucent green.
535	Oriental green ⑥ ★★★★★ ■	Cobalt-titanium-nickel-zinc oxide	PG 19	Opaque pure medium green with high tinting power.
513	Chromium oxide green deep ③ ★★★★★ ■	Chromium oxide green	PG 17	Dull, olive-tinged, highly stable green, with high tinting power and opacity.
529	Viridian ③ ★★★★★ ◻ ●	Zinc oxide Bismuth vanadate Hydrated chromium oxide green	PW 4 PY 184 PG 18	Semi-translucent, gentle, yellow-tinged green, very similar to the "original" Schweinfurt green. Schweinfurt green was an important artists' colour in the 19th century, but was highly toxic on account of its arsenic content.
528	Cobalt green opaque ⑦ ★★★★★ ■	Bismuth vanadate Cobalt-lithium-titanium	PY 184 PG 50	Brilliant light green with high opacity, produced from two "pure" pigments.
640	Verona green earth ① ★★★★★ ◻ ●	Hydrated chromium oxide green Red iron oxide	PG 18 PR 101	Imitation of the prime Terra Verde earths from Baldo near Verona, which are no longer available. Ideal for producing the "Verdaccio" effect, the green priming coat applied to the main areas in portrait colouring.
526	Sap green ② ★★★★★ ◻ ● ○	Indanthrone blue Azo-nickel complex	PB 60 PY 150	Dark green with good glaze effect. Similar to Dutch pink, which was obtained from the unripe berries of the milkwort.
510	Chrome green tone light ③ ★★★★★ ■	Disazopigment Chromium oxide green Hydrated iron oxide	PY 155 PG 17 PY 42	Opaque, light and pure green with very high tinting power; lighter and markedly yellower variant of dark chrome green.
530	Yellowish green ② ★★★★★ ■	Monoazoyellow Phthalocyanine green Hydrated iron oxide	PY 74 PG 7 PY 42	Light yellowish green with high opacity.
534	Translucent golden green ③ ★★★★★ ◻ ●	Metal complex Phthalocyanine green	PY 129 PG 7	Golden-toned in glazes, like a light, yellowish sap green in full tone.
646	Natural Bohemian green earth ① ★★★★★ ◻	Earth pigment	PBr 7	Natural earth with a highly pronounced brown tinge, low tinting power. Results from the weathering of calcium-magnesium-iron silicates.



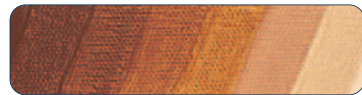
No.	Name	Pigment(s)	C.I.-No.	Description
656	Attish light ochre ① ★★★★★ <input checked="" type="checkbox"/> ● ○	Hydrated iron oxide	PY 42	Imitation of the ochre which was much sought-after in ancient times, using modern ferrous oxides. Semi-opaque to semi-translucent. Fiery golden yellow in glazes.



660	Raw Sienna ① ★★★★★ <input checked="" type="checkbox"/>	Earth pigment Red iron oxide	PBr 7 PR 101	Semi-translucent to semi-opaque ochre yellow pigmented with a natural earth from Germany.
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644	Yellow Sienna ② ★★★★★ <input checked="" type="checkbox"/> ●	Hydrated iron oxide Red iron oxide	PY 42 PR 101	Imitation of the particularly brilliant Sienna earths, which are virtually unobtainable today, with selected ferrous oxides.
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653	Deep ochre ① ★★★★★ <input checked="" type="checkbox"/> ●	Earth pigment	PY 42/ PY 43	Dark, warm, red-tinged ochre pigmented with a natural earth from Germany.
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237	Translucent orange oxide ③ ★★★★★ <input type="checkbox"/> ●	Red iron oxide Hydrated iron oxide	PR 101 PY 42	Warm, finely translucent brownish orange.
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661	Natural burnt Sienna ① ★★★★★ <input checked="" type="checkbox"/> ●	Earth pigment	PBr 7	Dark reddish brown, semi-translucent to semi-opaque, pigmented with a burnt natural earth.
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651	English red ① ★★★★★ <input checked="" type="checkbox"/> ○	Red iron oxide	PR 101	Generic name for light iron oxide reds, brownish red with high opacity and tinting power.
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663	Pozzuoli earth ① ★★★★★ <input checked="" type="checkbox"/>	Red iron oxide	PR 101	Imitation of the famous natural earths from Italy, which are barely obtainable today. Its name relates to the place where it was formerly found at the foot of Vesuvius. Slightly lighter and yellower than Pompeiian red, with high opacity and tinting power.
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647	Pomeiian red ① ★★★★★ <input checked="" type="checkbox"/> ●	Red iron oxide	PR 101	This warm, brownish red was found on the mural colourings in Pompeii. It is darker than Terra Pozzuoli.
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648	Caput mortuum ① ★★★★★ <input checked="" type="checkbox"/>	Red iron oxide	PR 101	Violet-tinged dark reddish brown with high opacity and tinting power. Its name is derived from the field of alchemy and means "death's head", as this colour was obtained from iron salts which were baked down to their "dying" embers.
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672	Mineral brown ③ ★★★★★ <input checked="" type="checkbox"/> ●	Zinc-iron-chromium-brown	PBr 33	Opaque, pure dark brown with high opacity and tinting power, lighter and purer than a burnt umber.
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662	Brown pink ③ ★★★★★ <input type="checkbox"/>	Metal complex Red iron oxide Hydrated iron oxide Phthalocyanine green	PY 153 PR 101 PY 42 PG 7	Stil de grain was formerly obtained from the dyestuff contained in the semi-ripe berries of the milkwort – a warm translucent tone.
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669	Translucent brown oxide ① ★★★★★ <input type="checkbox"/>	Brown iron oxide	PR 101	Dark, finely translucent reddish brown with high tinting power, more fiery than Vandyke brown.
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670	Raw umber light ① ★★★★★ <input checked="" type="checkbox"/> ●	Earth pigment	PBr 7	Pigmented with a natural earth. Very fiery and yellow-tinged when used for glazing.
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664	Natural raw umber ① ★★★★★ <input checked="" type="checkbox"/>	Earth pigment Phthalocyanine green Hydrated iron oxide	PBr 7 PG 7 PY 42	Mixture of natural earths and organic pigments. Semi-translucent, dark, olive-tinged brown.
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666	Natural burnt umber ① ★★★★★ <input checked="" type="checkbox"/>	Earth pigment	PBr 7	Pigmented with a natural earth. When burned, the umbers lose water of crystallisation and their grain size increases. This results in increased opacity and a shift in the shade towards a deep reddish brown with high tinting power.
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667	Vandyke brown ① ★★★★★ <input checked="" type="checkbox"/>	Perylene Red iron oxide Lamp black	PR 179 PR 101 PBk 7	Imitation of the colour which was formerly obtained from fine-washed brown coal, using highly stable pigments. The original colour was similarly unstable to asphalt. A translucent, deep blackish brown.
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645	Asphaltum black translucent ① ★★★★★ <input type="checkbox"/>	Red iron oxide Quinacridone Lamp black	PR 101 PV 19 PBk 7	Highly stable pigments are used to imitate the asphalt colour which was widespread in the 19th century, a translucent, deep brown of low stability which was able to show through the colour layers.
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1. Primer



50 500

50 502

50 504

50 500	500 ml	Size
50 502	500 / 1000 ml	Primer
50 504	500 / 1000 / 4000 ml	Gesso

2. Application

2.1 Mediums / Additives



50 038

50 039

50 040

50 041

50 045

50 053

50 022



50 034

50 036

50 037

50 038	60 / 200 / 1000 ml	MUSSINI® Medium 1 for thinning
50 039	60 / 200 / 1000 ml	MUSSINI® Medium 2 retards drying
50 040	60 / 200 / 1000 ml	MUSSINI® Medium 3 accelerates drying
50 041	60 / 200 / 1000 ml	RAPID Medium fast-drying
50 045	60 / 200 / 1000 ml	Medium N neutral drying, without oil of turpentine
50 053	60 ml	Transparent paint medium
50 022	60 ml	Siccative de Haarlem
50 034	35 / 120 ml	Megilp, stabilizer of consistency
50 036	35 ml	Drying accelerator
50 037	35 ml	Transparent gel

2. Application

2.2 Binding mediums



50 005

50 014

50 015

50 016

50 025

50 027

50 005	60 / 200 ml	Stand linseed oil, slightly yellowing, slowly drying
50 014	60 / 200 ml	Boiled linseed oil
50 015	60 / 200 / 1000 ml	Linseed oil, refined + bleached
50 016	60 / 200 ml	Poppy oil bleached
50 025	60 ml	Sunflower oil / refined / winterized
50 027	60 / 200 / 1000 ml	Linseed oil, cold pressed
50 073	90 ml	Venetian turpentine resin, viscous natural balsam
50 093	100 / 1000 ml	Dammar in pieces
50 094	100 ml	Chios mastic resin
50 104	100 ml	Cyclohexanone resin



50 073

50 093

50 094

50 104

3. Thinner and cleaning agents



- 50 013** 60 / 200 / 1000 ml Citrus-terpin
50 018 35 ml Cleaner for oil painting surfaces
50 019 60 / 200 / 1000 ml Turpentine substitute
50 023 60 / 200 / 1000 ml Terpin cleaner
50 024 60 / 200 / 1000 ml Gum spirit of turpentine

- 50 051** 60 / 200 / 1000 ml Brush cleaner
50 102 60 / 200 / 1000 ml Oil of turpentine, refined
50 026 60 / 200 / 1000 ml Diluent N, thinner, odourless

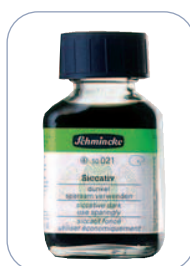
4. Varnish



- 50 408** 300 ml AEROSPRAY mat film
50 412 300 ml AEROSPRAY glossy film
50 414 300 ml AEROSPRAY picture varnish, glossy
50 416 300 ml AEROSPRAY final varnish, glossy
50 008 60 / 200 / 1000 ml Dammar varnish, glossy
50 017 60 ml Mastic varnish, satin glossy
50 020 60 / 200 / 1000 ml Alcoholic retouching varnish, glossy
50 044 60 / 200 / 1000 ml Neutral varnish

- 50 064** 60 / 200 / 1000 ml Mat varnish
50 065 60 / 200 / 1000 ml Final varnish, glossy
50 083 60 / 200 / 1000 ml Picture varnish, glossy
50 084 60 / 200 / 1000 ml Universal varnish RS, glossy
50 072 35 ml Wax varnish, mat satin gloss

5. Specialities



- 50 021** 60 ml Siccative, dark
50 069 60 ml Phöbus A, restoring medium
50 060 60 / 200 ml Varnish remover
50 003 60 ml Copaiba balsam

- 50 021** **50 069** **50 060** **50 003**

The colour box assortment



Art.-No. 70 001
 ◀ **MUSSINI®**
 Wooden set "Test the Best",
 3 x 15 ml
Colours 15 ml:
 238, 344, 477

Art.-No. 70 008
MUSSINI® ▶
 Introductory set 8 x 15 ml
Colours 15 ml:
 103, 216, 363, 364, 477, 491, 518, 656



Art.-No. 70 212
 ◀ **MUSSINI®**
 Small wooden set with
 12 x 15 ml und **white 120 ml** (103) +
 medium + palette cup +
 drawing charcoal + 2 brushes
Colours 15 ml:
 216, 223, 346, 364, 490, 491
 518, 526, 656, 661, 666, 780
Medium:
MUSSINI® Medium 1 (50 038)

Art.-No. 70 615
MUSSINI® ▶
 Large wooden set with 15 x 35 ml,
white 120 ml (103) + medium + cleaning agent + double
 palette cup, palette knife + drawing charcoal + 3 brushes
Colours 35 ml:
 209, 216, 223, 346, 364, 473, 490, 491, 518, 526, 647,
 656, 661, 666, 780
Mediums:
MUSSINI® Medium 1 (50 038),
Terpin cleaner (50 023)



Art.-No. 70 430
 ◀ **MUSSINI®**
 Double wooden set with 18 x 15 ml, 17 x 35 ml, **white 120 ml** (103) +
 4 x mediums + cleaning agent + double palette cup, palette knife +
 drawing charcoal + 3 brushes
Colours:
15 ml 224, 232, 237, 239, 353, 363, 365, 479, 486,
 494, 497, 510, 511, 534, 647, 653, 779, 780
35 ml 209, 216, 223, 243, 346, 364, 473, 487, 490,
 491, 518, 526, 529, 640, 656, 661, 666
Mediums:
MUSSINI® Medium 1 (50 038), **Megilp** (50 034),
Drying accelerator (50 036), **Transparent gel** (50 037),
Terpin cleaner (50 023)

We reserve the right to change the composition of sets.

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