

Point



INTRODUCTION

Traditional oil colour has a rich, thick, buttery quality fresh from the tube and is an exceptionally popular medium due to its versatility, offering the artist excellent results from the time-honoured techniques of blending and glazing, impasto and scumbling; the exact same can be said of ArtisanTM.

Like traditional oil colour, Artisan Water Mixable Oil Colour is made from linseed oil and safflower oil. The only difference is the linseed oil and safflower oil used in Artisan have been modified so that they will mix and clean up with water. Artisan has been specifically developed to appear and work just like conventional oil colour. The depth of colour, buttery consistency, lightfastness, opacity/transparency, performance and drying times of Artisan, allow artists to use this range for all oil colour techniques.

Unique Winsor & Newton™ Artisan formulations, manufacture and quality control ensure an oil colour of absolute excellence, which is comparable if not better than many other conventional artists' quality oil colours across the world.

The key difference between Artisan Water Mixable Oil Colour and conventional oils is its ability to mix and clean up with water. Artists using conventional oil colour will require the use of solvents such as turpentine or white spirit (mineral spirits), Artisan on the other hand can be thinned with water for painting and all brushes and equipment cleaned up with soap and water only; the use of hazardous solvents is not necessary. As a result, artists can enjoy a safer painting environment, and combined with the hints and tips in this leaflet can develop a safer studio practice.

As a result Artisan is ideal for:-

- Oil painters who are sensitive to, or simply want to avoid exposure to solvents such as white spirit (mineral spirits) or turpentine.
- Students and teachers in schools and colleges where the use of oil colour is prohibited because of the solvents.
- Artists working in shared studio space where the build up of solvent levels could lead to a harmful concentration of vapours and a generally unpleasant odour of solvents.
- Artists who work within a small home environment and wish to reduce the odour of oil painting.
- For travel all Artisan products (colour & mediums) can be transported on aeroplanes. (Subject to the agreement of the airline)

A range of unique Artisan thinners, oils, mediums and varnishes have also been developed to allow artists to achieve all the traditional oil colour techniques and styles, without requiring conventional linseed oil or Liquin^M. Full details on the uses and applications of the products available can be seen in the **Thinners, Oils, Mediums and Varnishes** section.





The Artisan range offers a balanced spectrum of 40 colours across two Series. Both Series are available in 37ml tubes, and 31 Series 1 colours are available in 200ml (all colours are available in the US).



There are 11 products within the *Artisan* Thinners, Oils, Mediums and Varnishes range. Nine are in 75ml and 250ml bottles. Varnish Remover is available in 75ml bottles and Impasto Medium is available in 60ml and 200ml tubes.

The Artisan range also offers a selection of sets containing assorted colours – a perfect introduction to Artisan.



CHARACTERISTICS AND BENEFITS OF ARTISAN COLOUR

Artisan is a genuine oil colour and hence has all the working characteristics you would expect from a conventional oil colour.

Formulation

Winsor & Newton have over 170 years of experience in the making of oil colours. The choice of raw materials, formulation and manufacture of *Artisan* colours reflects this experience and produces a product of absolute excellence. The unique formulation contains no water: The modified vehicle (linseed and safflower oil) allows the colour to accept water and retain all the other characteristics of conventional oil colour.

Pigments

A wide variety of pigments are used in Artisan to provide all the characteristics expected from a Winsor & Newton oil colour:

- High pigment strength this provides good covering power, which is the ability of a pigment to either go a long way or cover previous layers.
- Single pigments a high proportion of single pigments are used to provide brilliance of colour and clean colour mixing.



• Variable opacity – Winsor & Newton select the most suitable oil and method of pigment dispersion to bring out the individuality of each pigment in the Artisan range. Opaque colours provide covering power and flat areas of colour whilst transparent colours give depth to the painting. The transparency/ opacity of the colour is shown on the **Colour Chart** and in the **Technical** section.



Choice of Colours – widest

spectrum

A traditional strength of a *Winsor & Newton* range is the broad choice of colours. The *Artisan* colour range has been chosen according to mass tone (colour from the tube), undertone (bias of colour when in a thin film), strength and relative opacity. Each colour has been specially selected looking at individual pigment characteristics. The resultant colour spectrum of 40 colours is spread around the colour wheel to ensure that as many colour positions and mixtures are possible.

Series

The series indicates the price of colour - mostly determined by the cost of obtaining and refining the pigment e.g. Series 2 colours are more expensive as they contain genuine cadmiums and cobalts. Full details of all colours can be seen in the **Technical** section.

Short Buttery Consistency

Artisan has the short buttery consistency expected from an oil colour from *Winsor & Newton*, this consistency is a careful balance between the pigment and the oils used in the formulation (modified linseed and safflower). This is the traditional consistency of oil colours, and as such allows the artist a broader variety of techniques – the paint can be thinned as required.

Drying Times

As with conventional oil colours, the paint film will be touch dry in 2 -12 days, but different colours will dry at different rates due to the varying reaction of each pigment when mixed with oil. *Winsor & Newton* formulate each colour individually to optimise the overall drying rates of *Artisan*, helping artists to avoid the problems of slow drying under layers.

The following list is a guide to the likely variations:

Fast Drying (around two days) - Prussian Blue, Umbers.

Medium Drying (around five days) – Cadmium Hues, Phthalo Blue (Red Shade), Phthalo Greens, Siennas, French Ultramarine, Synthetic Iron Oxides, Ochres, Titanium White, Zinc White, Lamp Black and Ivory Black.

Slow Drying (more than five days) - Cadmiums, Permanent Rose (quinacridone), Permanent Alizarin Crimson.

To speed the drying of all colours by around 50%, Artisan Fast Drying Medium or Impasto Medium is recommended.

As with conventional oil paintings, to avoid yellowing of the oil, paintings should not be allowed to dry in continuous darkness or places with high humidity.

Artisan paintings require full drying before varnishing - at least 6 - 12 months - see the Varnishing section.

Permanence

Most artists like to be sure that their colours are permanent. Recent pigment developments have led to continued improvements in the lightfastness of artists' colours. These improvements have been utilised in *Artisan*. All *Artisan* colours are rated AA or A and are recommended as permanent for artists' use. Permanence is discussed further in the **Technical** section.



Tube Information

Winsor & Newton were the first colourmen to publish the composition and permanence of their colours in 1892. Providing artists with information remains just as important today. Here is an explanation of the Artisan tube label.





Clean up – No Hazardous Solvents

Artisan does not require any hazardous solvents for cleaning up after painting. After use, just wipe excess oil colour from the brush and use soap and water to clean. As with all paints, it is advisable to clean up on the same day to keep your brushes in good condition. There is no need to use solvents such as turpentine and white spirit (mineral spirit).

You may also use *Artisan* Thinner to clean your brushes and equipment, followed by soap and water. You may find this useful with any stubborn colours.

Durability

Artisan Water Mixable Oil colour is a relatively new medium in terms of art materials, however, colours containing oil and water are not new and have in fact existed since prehistoric times. For example, egg tempera is an oil in water emulsion - and this has been used by artists for over 600 years.

During the development process, *Artisan* colours were tested for many properties that would be indicative of its durability such as adhesion, flexibility, drying, film hardness, water resistance - as well as application properties such as mixibility with water, flow, texture retention and wetting. In addition, the full range of colours were painted out on canvas directly from the tube and with mediums and/or water at different thicknesses and have been observed and tested at regular intervals since. All results from this development stage have confirmed that *Artisan* does indeed act in the same way as you would expect from a conventional oil colour.

To ensure the long term durability of *Artisan*, *Winsor & Newton* have and will continue to study *Artisan* under various conditions using paint films that have been allowed to dry naturally for longer periods of time, test samples that have been aged artificially and also by use of specialised equipment. The key areas to consider when assessing long term durability are:-



Evaporation of water from film

Artisan dries in the same way as conventional oil colours, by means of oxidation. Artisan films which have been diluted with water have been shown to be free of that water within the first weeks and months of drying. The drying process continues by oxidation as it would with a conventional painting.

Film Hardness and Future Resistance to Water & Solvent

A number of tests have been carried out to measure the hardness and resistance to water/solvents of the dry *Artisan* paint film in comparison to conventional oil paint films. All results confirm *Artisan* has similar film hardness and levels of resistance to both water and solvent as traditional oil colours.

Adhesion and Flexibility

Adhesion and Flexibility are probably the two most important properties that will give an indication of the long term durability of a paint film. Poor adhesion will be detrimental as will poor flexibility, as a rigid paint on a flexible surface will tend to crack. Extensive tests by *Winsor & Newton* R&D chemists have concluded that both the flexibility and adhesion are very similar to that of other *Winsor & Newton* oil colours.

In combination with the work carried out to date and the ongoing studies, there is further analysis taking place in various conservation departments across the world. For more detailed information on the durabilitytesting of *Artisan* please refer to the *Winsor* & *Newton* website. www.winsornewton.com

ARTISAN THINNERS, OILS, MEDIUMS AND VARNISHES

INTRODUCTION

As with conventional oil painting, mediums allow you to alter the characteristics and working properties of your tube colour. *Artisan* has its own specially developed range of Oils, Mediums, Varnishes and a Thinner to allow all techniques to be achieved with *Artisan* colours, the products are:

Thinner, Linseed Oil, Safflower Oil, Stand Oil, Painting Medium, Fast Drying Medium, Impasto Medium, and Gloss Varnish, Matt Varnish, Satin Varnish and Varnish Remover. All of these products are certified "AP Non Toxic" by the Art & Creative Materials Institute (ACMI) in the USA.

All Artisan bottles are easy to open as they do not require child resistant caps.



Artisan Water Mixable Mediums Recommended Usage Chart

Characteristics THINNERS		OILS			MEDIUMS		VARNISHES					
	Thinner	Water	Linseed Oil	Safflower Oil	Stand Oil	Painting Medium	Fast Drying Medium	Impasto Medium	Gloss Varnish	Matt Varnish	Satin Varnish	Varnish Remover
Diluting – Speed of evaporation	×I	x2										
Improves Flow					•	•						
Controls Flow							•					
Reduces Consistency			٠	•	•	•	•					
Increases Transparency			•	•	•	•	•					
Speeds drying time							•	•				
Slows drying time				•	•	•						
Increases Gloss			•	•	•	•	•					
Impasto Effect								•				
For use with paler colours				•								
Oils Out						•						
For preparing your own mediums	•	•	٠	•	•							
Increases durability of Film					•	•						
Picture Cleaning	•											
Protects finished pictures									•	•	•	
Removable									•	•	•	
Cleans Materials	•	•										
Varnish Removing												•

Denotes relative speed of evaporation xI x2 Faster

Thinner

The purpose of *Artisan* is to be able to avoid the use of hazardous solvents. Although water is suitable as a diluent for the colour, its speedy evaporation can make the colour thicken upon the palette much quicker than conventional oil colour would when used with turpentine.

To help with this issue we have developed a Thinner to dilute *Artisan* colours. This can be used instead of water or combined with it. It also provides a more oily consistency which is preferred by some painters and as it is not forming an emulsion with the colour there is less colour change than there would be when using water.

Thinner may be combined with Artisan oils to make your own mediums.

To ensure that you avoid over thinning the colour, Thinners should be combined with any Artisan medium for very dilute uses. (For advice when using water or Thinner please see **Thinning** section)

Linseed Oil

Artisan Water Mixable Linseed Oil is the main binder in the Artisan colours. When mixed with colour it reduces their consistency. Linseed oil is the most commonly used medium. It is combined with water or Thinner to maintain the structure of the paint film. It is also used when painting in layers to maintain the fat over lean rule – each successive layer must have more oil in it than the previous one.

Safflower Oil

Some Artisan colours, whites and other pale colours contain Safflower Oil instead of or in addition to Linseed Oil. As it is a paler yellow, the paler pigments maintain their brightness. If painting a lot with pale colours, you may choose to use Artisan Water Mixable Safflower Oil instead of Linseed to reduce their consistency. It also increases gloss and transparency. Safflower Oil is slow drying and should not be used under faster drying layers e.g. Fast Drying Medium, umbers etc.





Stand Oil

Stand oil is the most durable type of linseed oil. It is part polymerised by being heated in the absence of oxygen. This joins the oil molecules together leaving less space for oxygen and hence a longer drying time. The benefit of *Artisan* Water Mixable Stand Oil is that it produces a paler, more flexible film with excellent levelling properties. It is therefore a good glazing medium and can be combined with water or Thinner for this purpose. It also increases gloss and transparency.

Painting Medium

Artisan Painting Medium is a stand oil based medium, ready made from the bottle. Because of the complex chemistry of water mixable oils, it has been possible for us to formulate a superior medium from a selection of raw materials. This medium thins the consistency of *Artisan* oil colours and aids fine detail work. It also improves the flow and wetting of the colour. It dries slowly to a flexible film and is good for "oiling out". Oiling out is the application of an oil medium to a painting which has sunk, or lost its oil to the layer underneath. (see **Oiling Out** Section)

Fast Drying Medium

This is a very popular medium as it speeds the drying of oil colour by about 50%, allowing further layers to be applied more quickly. The formulation has been improved and this has helped to wet the colour better. It thins the colour and increases gloss and transparency. When painting in layers it can substitute linseed oil and be combined with water and/or Thinner to maintain fat over lean.

Impasto Medium

This is a Water mixable impasto and texturing medium for use with *Artisan* oil colours. It will maintain the tube consistency of the colour and speeds the drying of the colours by about 50%. For thick impasto, build the texture in several layers allowing each layer to dry first, mixing the impasto thoroughly into the colour before use.

Gloss Varnish

Artisan Gloss Varnish is a water based varnish which does not contain any hazardous solvents. The varnish provides finished paintings protection from dirt and grease and when dirty itself, can be removed with *Artisan* Varnish Remover. *Artisan* paintings should be allowed to dry completely before varnishing, at least 6-12 months for thin films, longer for impasto paintings. Varnishes should not be used within the paintings as mediums. (Please see **Varnishing** section)

Satin Varnish

Artisan Satin Varnish is a water based varnish which does not contain any hazardous solvents. The varnish provides finished paintings protection from dirt and grease and when dirty itself, can be removed with Artisan Varnish Remover. Artisan paintings should be allowed to dry completely before varnishing, at least 6-12 months for thin films, longer for impasto paintings. Varnishes should not be used within the paintings as mediums. Satin Varnish should not be used on over absorbent or damaged paint films. Stir well before use. Satin Varnish may be applied over Gloss Varnish. (Please see **Varnishing** section)

Matt Varnish

Artisan Matt Varnish is a water based varnish which does not contain any hazardous solvents. The varnish provides finished paintings protection from dirt and grease and when dirty itself, can be removed with *Artisan* Varnish Remover. *Artisan* paintings should be allowed to dry completely before varnishing, at least 6-12 months for thin films, longer for impasto paintings. Varnishes should not be used within the paintings as mediums. Matt Varnish should not be used on over absorbent or damaged paint films. Stir well before use. Matt Varnish may be applied over Gloss Varnish. (Please see **Varnishing** section)

Varnish Remover

Artisan Gloss, Matt and Satin varnishes can be removed with ArtisanVarnish Remover, when dirty. (see **Removing Varnish** section). With all mediums, always shake the bottle well before use and mix the medium thoroughly into the Artisan colour (gradually adding small amounts of water only if required). The Matt and Satin varnishes should also be shaken well prior to use.





USING ARTISAN WATER MIXABLE OIL COLOUR

Thinning

With water

Water can be used for thinning Artisan colours instead of the solvents used with conventional oils. Water should be added gradually, a small amount at a time and mixed well on the palette. If too much water is used or added too quickly, some colours may 'foam' with air bubbles. This can be reduced or avoided by using Artisan Thinner or combining the water with an Artisan medium.

As water is added, some colours will lighten in tone. The colour will return to its original hue as the water evaporates. This colour change is reduced by the use of *Artisan* mediums in addition to water or by using *Artisan* Thinner instead.

With Thinner

Thinner can be used instead of water and produces a more viscous, slower evaporating mixture which avoids the colour change when water is used. (see Thinner in **Thinners, Oils, Mediums and Varnishes** section)

Important: Beware of over thinning. Water and Thinner thin the colour by diluting the modified linseed oil. If too much is used, there will be insufficient oil remaining to bind the pigment. The paint surface will be susceptible to damage and appear dull and matt. For fluid, transparent colour with an even sheen, dilute with *Artisan* Painting Medium, *Artisan* Fast Drying Medium, *Artisan* Linseed Oil, *Artisan* Safflower Oil or *Artisan* Stand Oil as well as water or Thinner. *Artisan* can however, be thinned right down with water or Thinner for staining a canvas in the early stages of a painting.

Amount of Medium Used

Mediums are additives and as such should be used in modest proportions, just enough to achieve the desired result. Too much Artisan Linseed Oil or Stand Oil will lead to wrinkling of the surface, just as it would with conventional oils.

Mixing Artisan Mediums

Artisan Mediums can be mixed together. If you do want to modify any of the mediums by mixing them do so thoroughly and stir before every use.

Making Your Own Mediums to Use with Artisan Colour

Many people mix linseed oil and solvent together whilst painting with conventional oils. You can add do this with *Artisan* by adding Thinner or water to *Artisan* Linseed Oil, Safflower Oil or Stand Oil. If you do make your own medium, mix the components thoroughly and stir every time before use.

Oiling Out

Oiling out replaces any oil which has been absorbed by the previous layer. Wipe Artisan Painting Medium sparingly into any dull, sunken areas of the painting with a lint free cloth. Wipe off any excess oil and leave to dry. Repeat until the area has an even sheen.

Oil Painting Rules with Artisan

Oil painting with Artisan requires attention to the same oil painting rules as conventional oil colour:

- Fat over lean (flexible over less flexible). When oil painting in layers, each successive layer must be more flexible than the one underneath. This rule is maintained by adding more medium to each successive layer.
- Thick over thin. Thick layers of oil colour are best applied over thin underlayers. Thin layers on impasto paintings are likely to crack.
- Slow drying colours should not form continuous under layers as any faster drying layers on top may crack.

Which Whites to Use

White is the most popular colour. Adding white to any other colour produces 'tints'. The two whites in the *Artisan* range offer different working characteristics. Titanium White is the most popular modern white. It is the whitest, most opaque white and gives excellent covering power. Zinc White (Mixing White) is the most transparent white, making it ideal for stronger tints and glazing. *Artisan* whites are ground in modified safflower oil to produce the whitest whites.

Extensive Underpainting/ Priming with White

Artisan whites are not recommended for these purposes because they are made with the slower drying safflower oil. For extensive underpainting we recommend Underpainting White from Artists' Oil Colour. Remember however, water cannot be used with this product.

Underpainting with Acrylics or Alkyds

Both Acrylics and Alkyds can be used for underpainting as they dry rapidly. However, an acrylic underpainting should be kept to a thin layer to avoid any problems with flexibility.

Artisan and Conventional Oil Colours

Artisan Water Mixable Oil Colours and Mediums can be mixed with conventional oil colours and conventional mediums. However, the resultant mixture will be progressively less water mixable, the more conventional oil colour or oil colour mediums are used. We recommend using Artisan colours and mediums exclusively in order to benefit from the use of water instead of solvents.

Conventional painting over an Artisan Underpainting

We recommend using Artisan throughout the painting as it may be difficult to maintain fat over lean by moving to a conventional oil colour in later layers.



Varnishing

Varnishes provide a transparent coating which protects your finished painting from general dirt. Picture varnishes are removable, enabling the painting to be cleaned in the future. Varnishes should not be used as mediums for adding to the colour. Artisan paintings should not be varnished until thoroughly dry (at least 6 months). There are three Artisan varnishes available – Gloss, Matt and Satin depending upon the desired finish.

The painting will benefit from being degreased before varnishing. This can be done with either Artisan Thinner or Artists' White Spirit (mineral spirits). Simply wipe over the surface of the picture sparingly and leave to dry overnight.

Apply the varnish using a large dry varnishing brush, immerse the brush in the chosen varnish and apply in long steady strokes across the painting surface.

To ensure the desired result, test before use. Matt and Satin should be shaken or stirred well before use and should not be used on absorbent or damaged surfaces.

Removing Varnish

Artisan Varnish can be readily removed when dirty. To remove Artisan Gloss, Matt or Satin Varnish, apply the Varnish Remover generously onto a lint free cloth and gently rub into the varnish film. If slight pigment is visible on the cloth this is an indication that the removal has been successful. Use plenty of clean cloth to ensure varnish is being removed from the surface. Avoid undue abrasion.

Recommended Basic Palette and Colour Mixing

Your initial palette should provide a wide colour spectrum and should have a good balance between transparent and opaque colours and between strong tinting and weaker tinting colours.

We therefore recommend the basic *Artisan* palette of Lemon Yellow, Cadmium Yellow Hue, Cadmium Red Medium, Permanent Rose, Permanent Alizarin Crimson, French Ultramarine, Phthalo Blue (Red Shade), Phthalo Green (Blue Shade), Raw Umber, Yellow Ochre, Burnt Sienna and Titanium White.



Restricted palettes are used by both beginners and serious painters to develop their understanding and use of colour. The six colour system uses two reds, two yellows and two blues as a 'primary' palette. This provides both a blue shade red and a yellow shade red for example, which will ensure clean violets and clean oranges from your palette. In *Artisan* these six colours are: Lemon Yellow, Cadmium Yellow Hue, French Ultramarine, Phthalo Blue (Red Shade), Permanent Rose and Cadmium Red Hue.

The additional colours recommended in the basic palette introduce a wider range of tones and greater variation in opacity and tinting strength.

Surfaces

Canvas is the traditional surface for oil painting. Canvas is usually stretched and primed on an open frame. Canvas boards are traditionally popular for sketching, painting outdoors or simply because artists prefer to paint on a hard backing.

There are a number of *Winsor & Newton* canvasses and canvas boards available that vary in specification and size to allow for all painting techniques. All are 100% cotton and acrylic primed to ensure long term stability.

Paper can also be used, provided it is sized and primed correctly. Heavyweight *Winsor & Newton* Water Colour Paper thinly primed with Acrylic Gesso Primer is recommended. For painters who are preparing their own surfaces, any *Winsor & Newton* primers can be used. If large amounts of water are used in underlayers of a painting, we recommend the use of our acrylic primer rather than Oil Painting Primer.

Brushes

A selection of good brushes provides a choice of marks and makes it easier for you to paint. There are a number of head shapes and sizes available to achieve all needs. There are a variety of shapes such Rounds, Flats, Filberts or Fans suitable for different strokes and techniques and a range of sizes from 000 – up to 22 allowing you to work in very fine detail or cover large areas quickly.

Winsor & Newton developed the Artisan range of brushes to achieve the best possible results when painting with Artisan Water Mixable Oil Colour. The brushes are made using a unique blend of high quality synthetic fibres which are designed specifically to have the performance and characteristics of hog bristle, yet maintain their spring and shape when in prolonged contact with water. There is a comprehensive range of head shapes and sizes including short handled brushes in the Artisan brush range making it easier to execute a variety of techniques. (Short handled brushes not available in the USA)

Other brushes can be used with Artisan to achieve different techniques. For blending and glazing a softer haired brush may be more suitable such as a sable or sable synthetic mix. In all cases to maintain the life of the brush, wash thoroughly at the end of each painting session with soap and water.

TECHNICAL INFORMATION

The technical table is designed to provide a summary of the essential information on the colour composition of Winsor & Newton Artisan colours. To help you understand the table, the following notations are explained:

CC (Colour Code): This column indicates the code number that is given to each of the colours. These are the last 3 digits of the 7 digit product code. This is primarily for ease of reference when stock holding for the retailer and to assist you in repurchasing.

Colour Name: This is the colour name.

Series: Series number indicating the price of the colour from a retailer. Series I is the least expensive.

Chemical Description: This column provides the chemical description of the pigments used in each colour.

Colour Index: The Colour Index International is the standard compiled and published by both the Society of Dyers and Colourists and the American Association of Textile Chemists and Colorists. The Colour Index classifies pigments by their chemical composition. This information will allow you to research a specific pigment's working characteristics in reference books if you wish. The individual pigments are identified in two ways:

i) Colour Index Generic Name – C.I. Name. Each pigment can be universally identified by its Colour Index Generic Name. As an example: Cobalt Blue is Pigment Blue 28, abbreviated PB28. Although the working properties of *Artisan* are detailed in this leaflet, we publish the Colour Index Generic Names of the pigments to allow you to cross reference the working properties in other sources if you wish, e.g. opacity, lightfastness.

ii) Colour Index Number – CI No. Pigments can also be identified by their Colour Index Number. It is considered an additional source of information to the Colour Index Generic Name. As an example: Cobalt Blue is 77346.

Of the two methods of reference, the Colour Index Generic Name is most commonly used.

Permanence: Permanence of an oil colour is defined as "its durability when laid with a brush and palette knife on ordinary prepared canvas and while under a glass frame in a dry room, freely exposed to ordinary daylight and an ordinary town atmosphere". This definition reflects the manner in which the majority of paintings are displayed. However, for testing purposes we are able to utilise accelerated tests for lightfastness and binder stability in addition to the information issued by our pigment suppliers. Our ratings are therefore a combination of the natural passage of time, accelerated tests and pigment manufacturers' testing and development. They are the most stringent in the Industry.

AA – Extremely Permanent

A – Permanent

All Artisan colours are recommended as permanent for artists' use.

ASTM: The ASTM abbreviation stands for the American Society for Testing and Materials. This organisation has set standards for the performance of art materials including a colour's lightfastness. However, there is currently no ASTM standard for water mixable oil colours. The lightfastness of *Artisan* colours is supplied by the *Winsor & Newton* Permanence ratings.

Transparency /**Opacity:** The transparent colours are marked \square , the semi-transparent colours are marked \square , the opaque colours are marked as \blacksquare , and semi opaque colours are marked as \blacksquare . Transparency however is relative and the ratings are provided as a guide only. Also, any thin film of colour will appear more transparent than a thicker one.

TECHNICAL INFORMATION

сс	COLOUR NAME	SERIES	CHEMICAL DESCRIPTION/PIGMENTS	C.I. NAME	C.I. NUMBER	PERM.	T/O
074	BURNT SIENNA I		Calcined natural and synthetic iron oxide	PBr7, PR 101	77492, 77491	AA	
076	5 BURNT UMBER I		Calcined natural iron oxide containing manganese	PBr7	77492	AA	
090	CADMIUM ORANGE HUE	I	Perinone Orange	PO43	71105	А	Ø
095	CADMIUM RED HUE	I	Naphthol AS, Naphthol carbamide	PR188, PR170	12467, 12475	А	Ø
098	CADMIUM RED DEEP HUE	I	Naphthol carbamide, Benzimidazalone	PR170, PO36	12475, 11780	А	Ø
099	CADMIUM RED MEDIUM	2	Cadmium sulphoselenide	PR108	77202	А	
100	CADMIUM RED LIGHT	2	Cadmium sulphoselenide	PR108	77202	А	
104	CADMIUM RED DARK	2	Cadmium sulphoselenide	PR108	77202	А	
109	CADMIUM YELLOW HUE	I	Arylide yellow	PY65	11740	А	Ø
113	CADMIUM YELLOW LIGHT	2	Cadmium zinc sulphide	PY35	77205	А	
115	CADMIUM YELLOW DEEP HUE	I	Arylide yellow, Perinone Orange	PY65, PO43	11740, 71105	А	Ø
116	CADMIUM YELLOW MEDIUM	2	Cadmium zinc sulphide, Cadmium sulphoselenide	PY35, PO20	77205, 77202	А	
119	CADMIUM YELLOW PALE HUE	I	Arylide yellow	PY65, PY3	11740, 11710	А	Ø
137	CERULEAN BLUE	2	Oxides of cobalt and tin	PB35	77368	AA	
138	CERULEAN BLUE HUE	I	Oxides of cobalt and chromium, Zinc oxide	PB36, PW4	77343, 77947	AA	
178	COBALT BLUE	2	Oxides of cobalt and aluminium	PB28	77346	AA	Ø
179	COBALT BLUE HUE	I	Indanthrone, Complex silicate of sodium and aluminium with sulphur	PB60, PB29	69800, 77007	А	
229	DIOXAZINE PURPLE	I	Carbazole dioxazine	PV23	51319	А	
263	FRENCH ULTRAMARINE	I	Complex silicate of sodium and aluminium with sulphur	PB29	77007	A (iii)	
317	INDIAN RED	I	Synthetic iron oxide	PR101	77491	AA	

сс	COLOUR NAME	SERIES	CHEMICAL DESCRIPTION/PIGMENTS	C.I. NAME	C.I. NUMBER	PERM.	T/O
331	IVORY BLACK	I	Amorphous carbon produced by charring animal bones	PBk9	77267	AA	
337	LAMP BLACK I		Amorphous carbon	PBk6	77266	AA	
346	LEMON YELLOW I		Arylide yellow	PY3	11710	А	Ø
380	MAGENTA	I	Quinacridone	PR122	R122 73915		
422	2 NAPLESYELLOW HUE		Synthetic iron oxides, Titanium dioxide	PY42, PR101, PVV4	77492, 77491, 77891	AA	
447	7 OLIVE GREEN I		Quinacridone, Carbon black	PO49, PBk9	-, 77266	А	
465	5 PAYNE'S GRAY I		Complex silicate of sodium and aluminium with sulphur, Amorphous carbon	PB29, PBk6	77007, 77266	A	
468	PERM. ALIZARIN CRIMSON I		Quinacridone pyrrolidone	-		А	
502	PERMANENT ROSE		Quinacridone red	PV19	46500	А	
503	PERMANENT SAP GREEN	2	Quinacridone, Brominated copper phthalocyanine	PO49, PG36	-, 74265	А	
514	PHTHALO BLUE (RED SHADE)	I	Copper phthalocyanine	PB15	74160	А	
521	21 PHTHALO GREEN (YELLOW SHADE) I		Chlorinated and brominated phthalocyanine	PG36	74265	А	
522	PHTHALO GREEN (BLUE SHAD	E) I	Chlorinated copper phthalocyanine	PG7	74260	А	
538	PRUSSIAN BLUE	I	Alkali ferri ferrocyanide	PB27	77510	А	
552	RAW SIENNA	I	Natural iron oxide	PBr7	77492	AA	
554	RAW UMBER I		Natural iron oxide, Containing manganese	PBr7	77492	AA	
644	TITANIUM WHITE I		Titanium dioxide, Zinc oxide	PW6, PW4	77891, 77947	AA	
692	2 VIRIDIAN 2		Hydrated chromium oxide	PG18	77289	AA	
744	4 YELLOW OCHRE I		Synthetic iron oxide	PY42	77492	AA	
748	ZINC WHITE (MIXING WHITE)	I	Zinc oxide, Titanium dioxide	PW4, PW6	77947, 77891	AA	

COLOUR CHART



2000

- AA Extremely Permanent
- A S Permanent
- Series Number Transparent
- \square Semi-Transparent
- Semi-Opaque
- Opaque
- (iii) Bleached by acids, acidic atmosphere

Sizes available: 37ml Tubes - All colours 200ml Tubes - Series I colours (Series I and 2 available in USA)

This colour chart is produced within the limitations of lithographic colour printing and is intended as a guide only.



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