



# World-leading coatings supplier

Hempel was founded in 1915 and is today one of the world's leading manufacturers and suppliers of coating solutions. Our advanced protective and decorative coatings can be found on millions of surfaces around the globe.

From the world's longest bridges and tallest skyscrapers to airports, sports stadia and civil structures our coatings protect your assets against corrosion in many different and challenging environments.

Our history is rooted in protective coatings for the extreme conditions experienced in the Marine, Decorative and Protective industries, so you can be assured that we offer trusted technology, expert technical service and reliability.

With our vast expertise and knowledge, you know that by choosing Hempel, you are choosing a brand you can trust.





Education Education

# Topaz Zero emulsions



An environmentally friendly waterborne topcoat designed to prevent growth of harmful bacteria and mould. Based on 100% pure acrylic and gives a smooth luxurious finish with excellent opacity, washability, flexibility and colour retention properties. Available in matt, silk and semi-gloss finish.

#### Certificates

Antibacterial, complies with ISO 22196

Antifungal, complies with BS 3900

VOC, complies with LEED and ISO 11890-2

Fire Resistance, complies with BS 476

Accelerated Weathering of 500 hours, complies with ASTM G151

Scrub Resistance, complies with BS EN ISO 11998:2006

Why is it important to prevent growth of harmful bacteria and mould on surfaces?

Growth of micro-organisms on painted surfaces can cause general discomfort, skin irritation and allergies. Topaz Zero technology helps to ensure a safer, healthy and clean environment.

# Strata Epoxy HT



Offering best-in-class abrasion resistance and mechanical strength, it has been developed to reduce the need for cyclical maintenance whilst offering high standards in sustainability. Strata products are ideal for demanding applications and total solutions.

Strata Epoxy HT is a solvent-free, high-build, two-component epoxy floor coating for heavy traffic areas.

#### **Special features**

- Outstanding mechanical properties.
- Exceptional chemical resistance.
- Odour-free.
- LEED compliance VOC.

#### Areas of use

Designed to protect concrete substrates in heavy-duty areas such as staircases in public areas, factories, manufacturing, warehousing, airfield workshops, food production, medical laboratories and car parks with heavy traffic. It is suitable for areas like ramps, turning circles, parking lots, and areas with heavy forklift traffic in particular.

#### Certificates/approvals:

Property	Standard	Result	
Adhesion strength	ASTM D4541-09	4.7 N/mm <sup>2</sup>	
Tensile strength	ASTM C307-03	20 N/mm <sup>2</sup>	
Flexural strength	ASTM C580-02	39 N/mm <sup>2</sup>	
Compressive strength	ASTM C579-01 (2012)	89 N/mm <sup>2</sup>	
Abrasion resistance	ASTM D4060-10	60 mg/1000 cycles	
Impact resistance	ASTM D2794	0.3 kg-m	
Shore D hardness	ASTM D2240-05	D/79/1	

Chemical resistance	Method	Result
Distillated water (cold) Distillated water (hot) Ethyl Alcohol (50% vol) Vinegar (3% acetic acid) Alkali solution (5%) Soap solution Detergent solution	ASTM D1308	No discolouration, change in gloss, blistering, softening, swelling, loss of adhesion or special phenomena was observed.

# The power of colour

Colour acts to inform, persuade and warn through our behavioural, emotional and physical reactions to it. And whilst there remains much debate surrounding the psychophysiological effects of colour, colour plays a critical role in our everyday lives and there can be no disputing the fact that colour has a major effect on us.

How colours affect us will vary to some degree between individuals and will inevitably be influenced by several factors including, society, upbringing, culture and race. However recognisable patterns of colour responses have been identified and there are certain colours that are synonymous with generating a particular emotion and subconsciously drive us to take a particular action. It is clear that any strong colour will cause an immediate reaction that can be physiologically measured.

#### ■ White

**Positive:** Hygiene, sterility, clarity, purity, cleanness, simplicity, sophistication, efficiency.

**Negative:** Sterility, coldness, barriers, unfriendliness, elitism.

#### ■ Brown

**Positive:** Seriousness, warmth, nature, earthiness, reliability, support.

**Negative:** Lack of humour, heaviness, lack of sophistication.

#### Violet

**Positive:** Spiritual awareness, containment, vision, luxury, authenticity, truth, quality.

**Negative:** Introversion, decadence, suppression, inferiority.

#### ■ Black

**Positive:** Sophistication, glamour, security, emotional safety, authority, efficiency, substance.

**Negative:** Oppression, coldness, menace, heaviness.

#### Blue

**Positive:** Intelligence, communication, trust, efficiency, serenity, duty, logic, coolness, reflection, calm.

**Negative:** Coldness, lack of emotion, unfriendliness.

#### Red

**Positive:** Physical courage, strength, warmth, energy, basic survival.

**Negative:** Defiance, aggression, visual impact, strain.

#### ■ Green

**Positive:** Harmony, balance, refreshment, universal love, rest, restoration, reassurance, environmental awareness, equilibrium, peace.

Negative: Boredom, stagnation, blandness.

#### Yellow

**Positive:** Optimism, confidence, self esteem, extraversion, emotional strength, friendliness, creativity.

**Negative:** Irrationality, fear, emotional fragility, depression, anxiety.

Before making a final colour choice it's worth considering the type of atmosphere that's required. Colours such as shades of red, orange and yellow are perceived as warm colours and thus increase the perceived temperature of a space whilst the opposite is true of true blues and blue shades of green.



# Colour in Primary schools

Young children respond to bright colours. Cheerful and fun colours relate to the energy and activities of children. Younger children tend to dismiss greys, browns and neutrals in favour of a more vibrant palette.

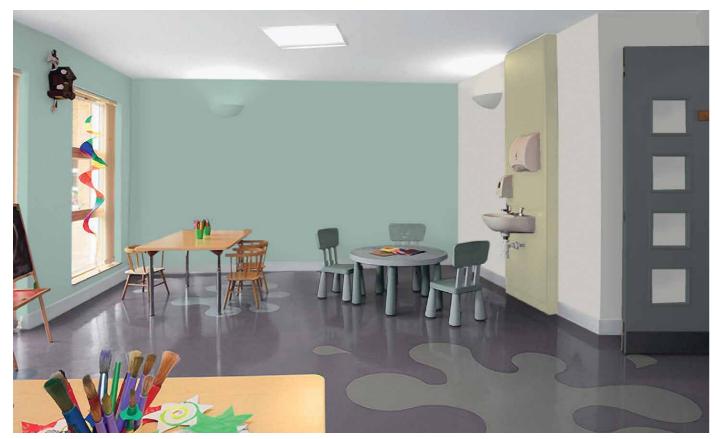
The key for a successful interior for primary schools is to combine exciting hues with lighter, neutral shades, to achieve a fun yet balanced environment, without the colour scheme being overbearing.

#### Classrooms

Keep saturated colours to feature areas. Walls which are painted in bright saturated tones will fight against the pupils' artwork on display. Subtle shades provide a suitable backdrop to show the paintings and pictures to their full effect. Creative play and social activities are often encouraged within primary school classrooms, so certain areas will benefit from warmer shades. However, whilst heavily saturated colours may catch the attention of younger children, they are not necessarily conducive to a learning environment. In addition, overuse of stimulating colours can result in hyperactive children, and so must be balanced with calmer shades. Pastel shades are thought to be the most successful for autistic children as it's been shown that such children have a higher sensitivity to whites and yellows.

#### Corridors

Corridors are a place of transition linking one room to another and may also be a place where groups of pupils congregate. Circles and shapes on the walls can create a friendly and welcoming space for young pupils and are not as distracting as they would be in classrooms. Simple shapes create mesmerising patterns that young children engage with.









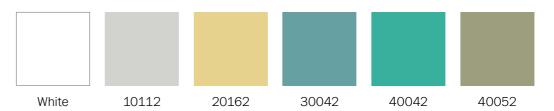


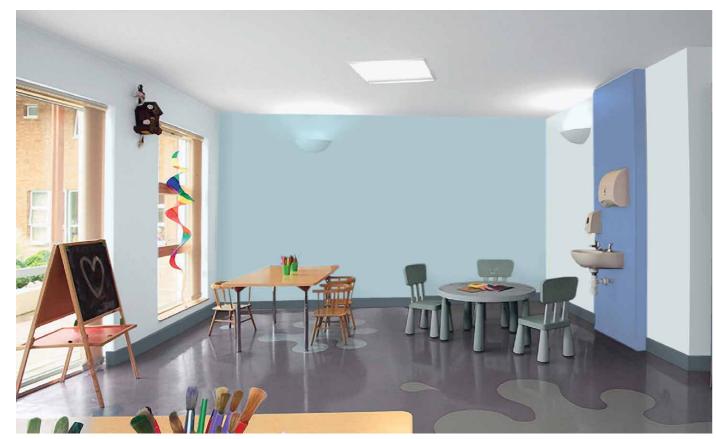


# Colour palette 1

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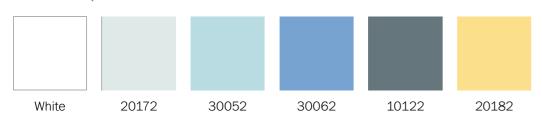




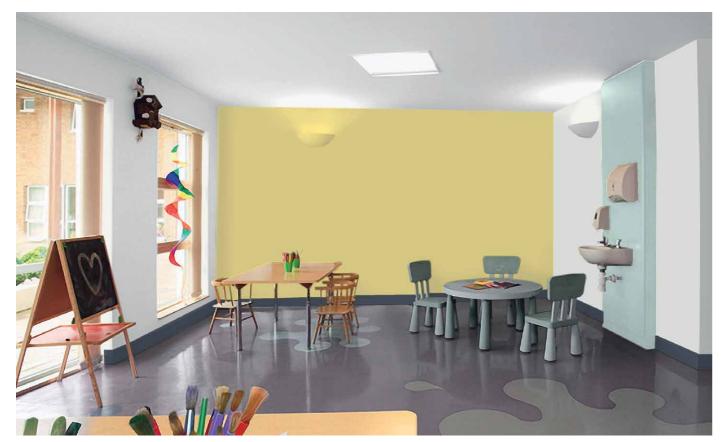


# Colour palette 3

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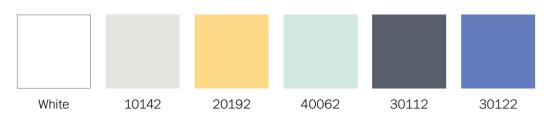


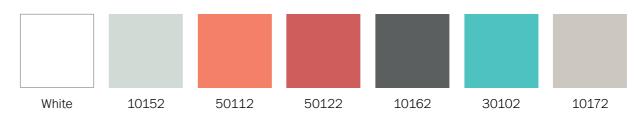




# Colour palette 5

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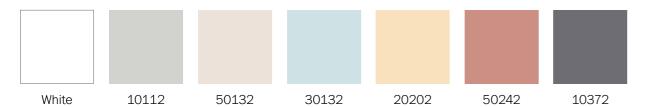


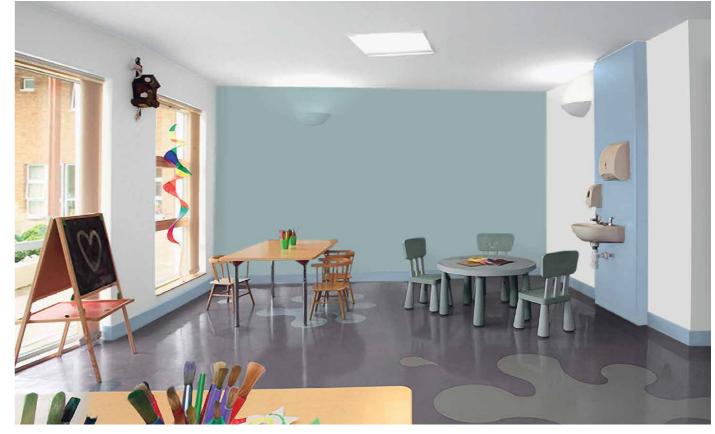




# Colour palette 7

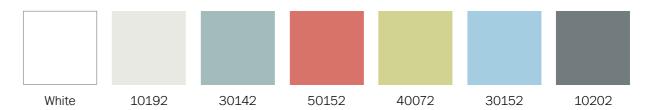
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# Colour in Secondary schools

Heavily influenced by fashion, teenagers reject primary shades, which they feel to be childish. Secondary and tertiary shades such as purples, aquas and greens are popular choices. Less saturated versions of these colours can be used to prevent too many vivid colours in one area.

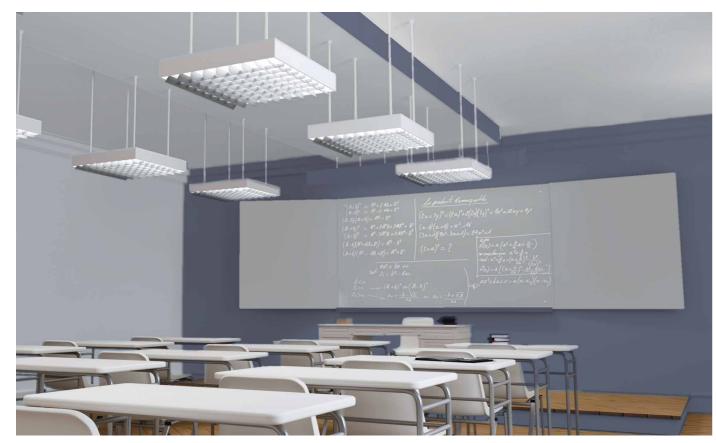
#### Classrooms

Secondary schools and colleges focus more on study than play, thus cooler shades (which are thought to encourage independent learning) should be used within many of the classrooms. The teaching wall is ideally suited to a feature wall colour as it not only draws attention to the teacher but it can also help to prevent eye strain. After concentrating on one particular area for a period of time, a subconscious action of lifting the head and staring at a distance enables the eye to change focus and therefore relax, thus reducing eye strain. The majority of text written on a smart board is black on a white background, a high contrast combination. A feature colour of about 50LRV on the teaching wall ensures the eye does not have to make too much adjustment after staring at the text for a while.

#### Corridors and circulation areas

Embracing school colours within the design for corridors and circulation areas can encourage a sense of belonging amongst the pupils. To promote a sense of order and calm, opt for cool colours such as blues, purples and greens, rather than the saturated, warm tones of red and orange. Vibrant, warm shades are acknowledged as energising and sociable colours but they can promote stress and tension.









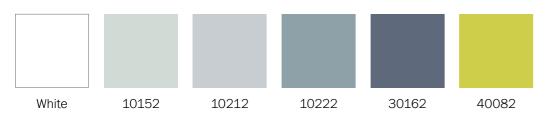


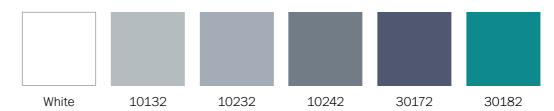




# Colour palette 1

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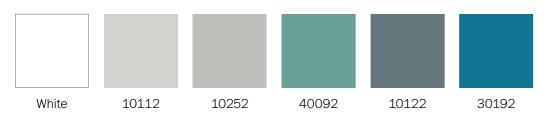


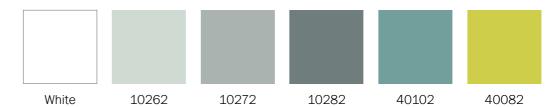




# Colour palette 3

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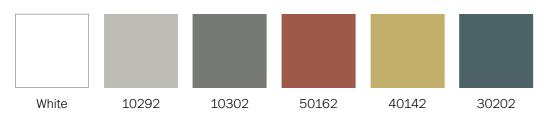


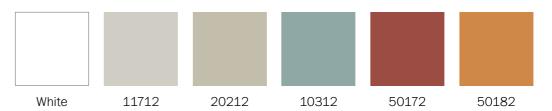




# Colour palette 5

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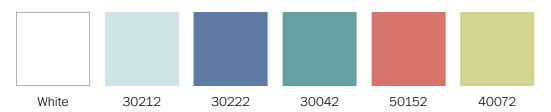


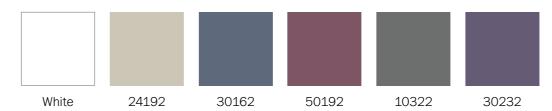




# Colour palette 7

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in a darkened room (maybe viewing slides for example) to more brightly lit spaces.

#### Corridors

Corridors can generally withstand more colour than in the classroom as the same level of concentration is not required when travelling from one destination to the next.

#### Libraries

Libraries and quiet study areas suit cool colours that promote a sense of calm and promote self study and concentration. These hues can be paired with neutral shades to avoid a cold and clinical feel. Mushroom and stone shades sit quietly and do not distract from the task in hand.

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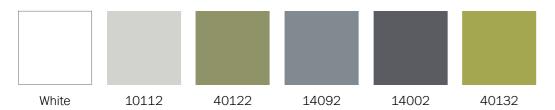






# Colour palette 1

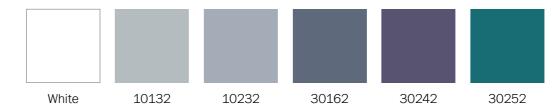
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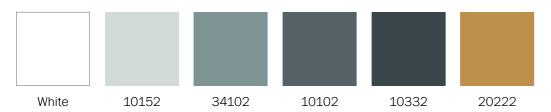






# Colour palette 3

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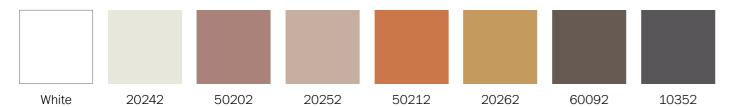






# Colour palette 5

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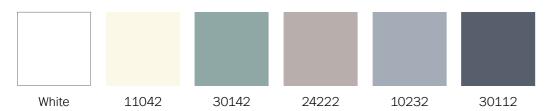






# Colour palette 7

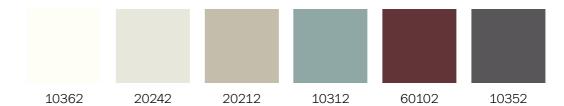
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#### hempel.com

Since 1915 Hempel has been a world-leading coatings specialist, providing protection and inspiration to the world around us. Today we have over 5,500 people in 80 countries delivering trusted solutions in the protective, decorative, marine, container, industrial and yacht markets. This includes many recognised brands like Crown Paints, Schaepman and Jones-Blair.

Hempel is proudly owned by the Hempel Foundation, which supports cultural, humanitarian and scientific causes across the world.

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