

# SHOW YOUR COLORS



 **MONOPOL**  
COLORS

A large, abstract background image featuring a vibrant red color palette. The image shows intricate, swirling patterns of red ink or paint splatters, creating a dynamic and artistic texture. The colors range from deep, dark reds to lighter, almost white pinks, with the overall effect being a rich, layered composition.

# 1. Company

## Monopol Colors

- Independent family company since 1947
- Focused on performance coatings
- HQ Fislisbach/Switzerland
- 2nd production unit in Mumbai/India (2009)
- 3rd production unit Nairobi/Kenia (2015)
- Production of 3'500 mt coatings per year
- 160 Employees



## 2. Architecture & Colors



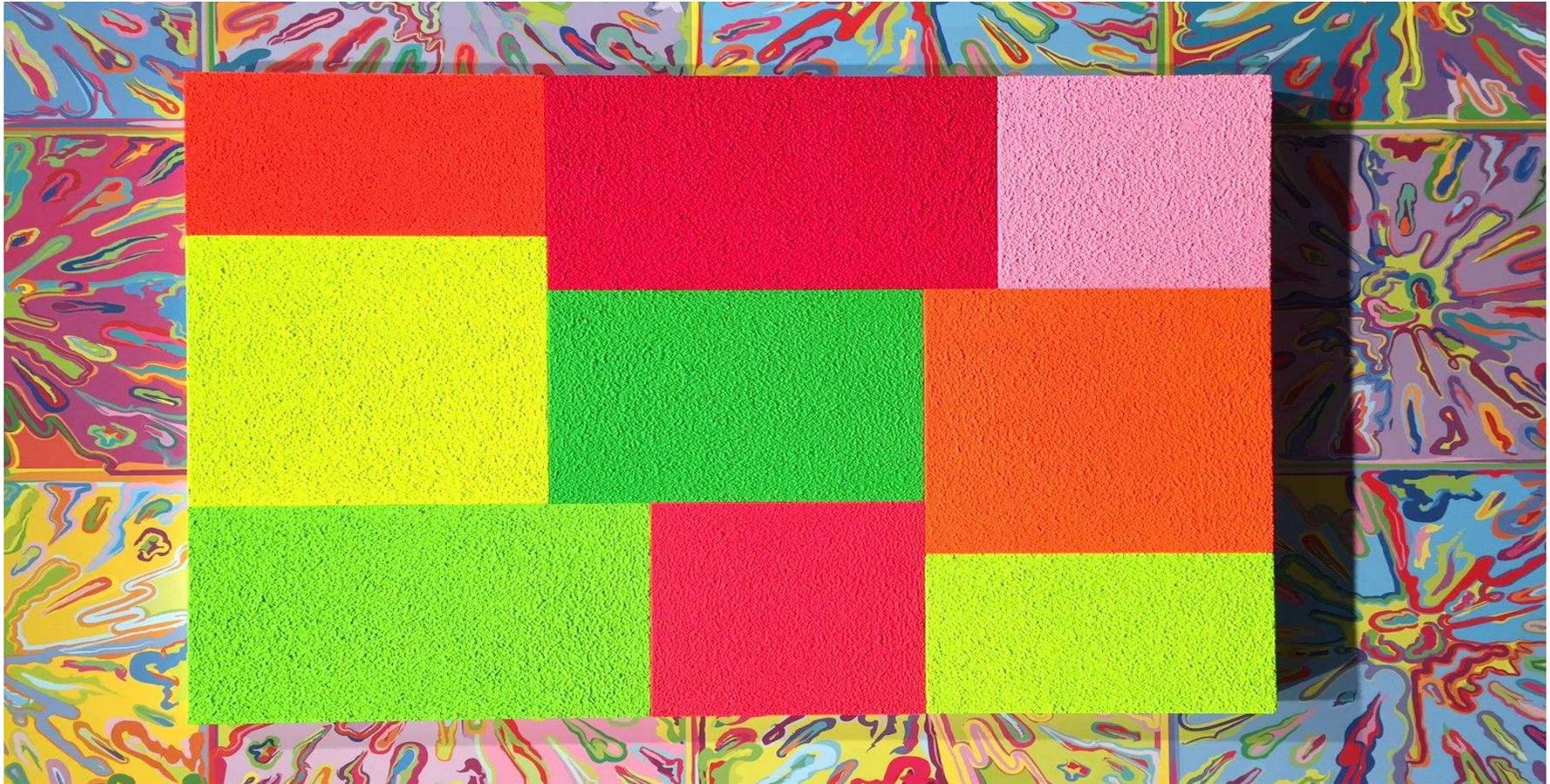
Hans Op de Beeck, The Collector's House, 2016 (Art Unlimited, Basel 2016)





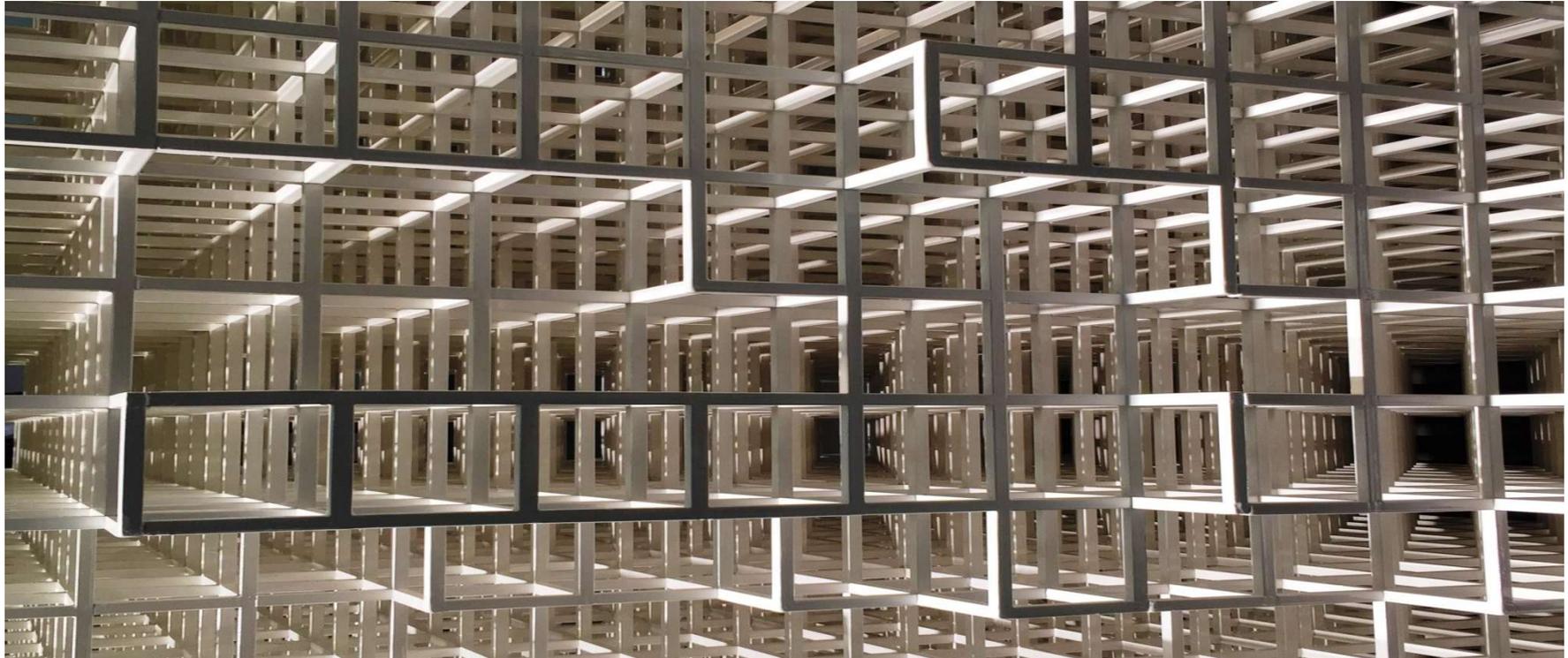
Hans Op de Beeck, The Collector's House, 2016 (Art Unlimited, Basel 2016)





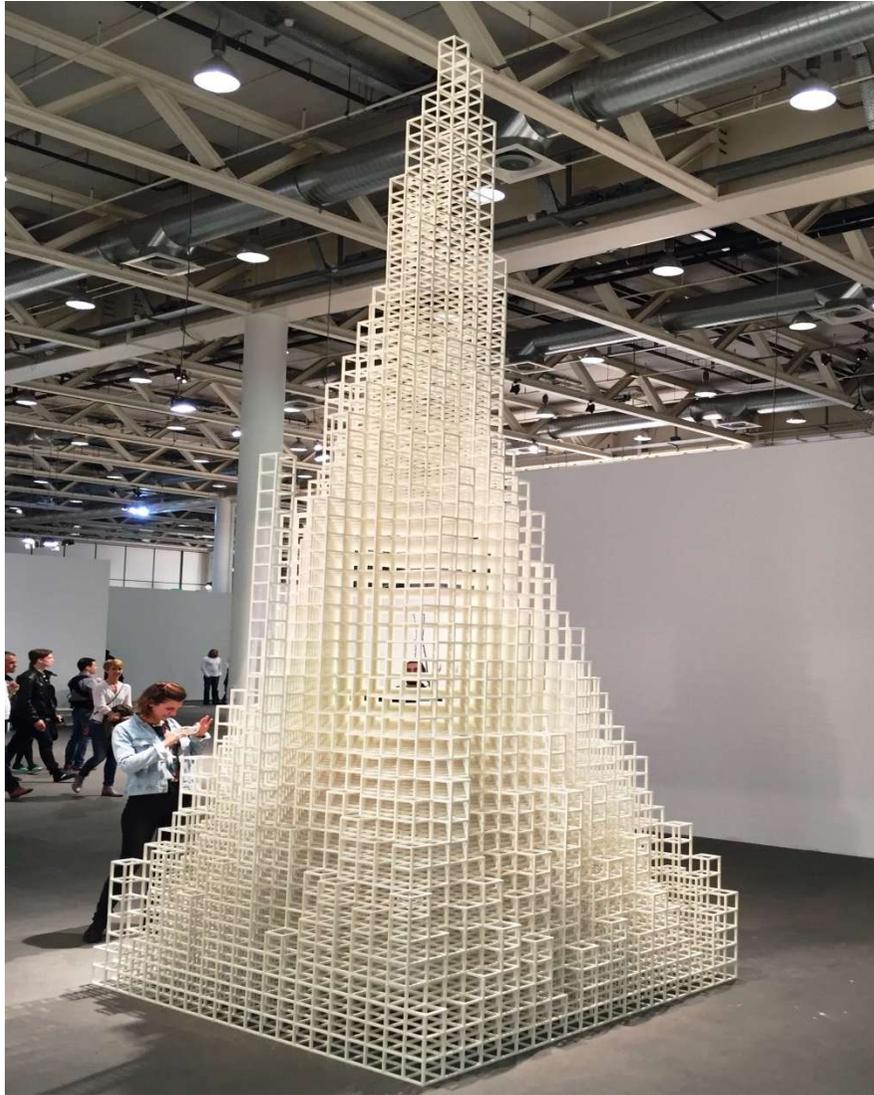
Peter Halley, Weak Force 2016 (Art Unlimited, Basel 2016)





Sol LeWitt, Irregular Tower, 1999 (Art Unlimited, Basel 2016)





Sol LeWitt, Irregular Tower, 1999 (Art Unlimited, Basel 2016)





## 3. Colors

# Henry Ford (1908)

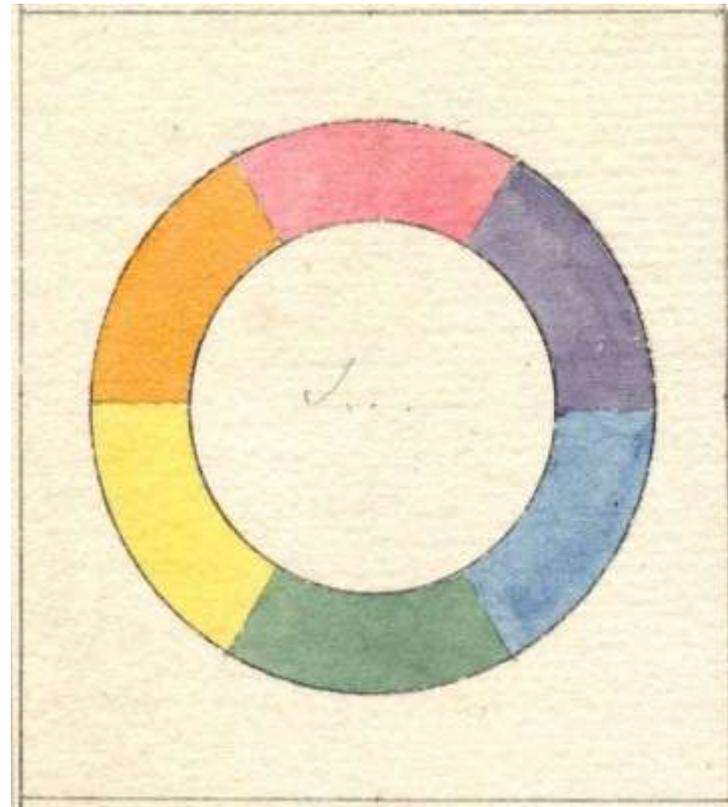
“A customer can have a car painted any color he wants as long as it’s black”



# Johann Wolfgang von Goethe (1791)

«Farben sind die Taten des  
Lichtes»

(«Colors are the deeds of light»)



# Australian = Dark orange

«House Decoration Guide» (1897)

(for tailors and fashion houses)



# RAL and RAL Design

RAL = 213 Colors

RAL-Design = 1625 Colors



# NCS (Natural Colour System)

NCS = 1750 Colors

NCS S = 1950 Colors



# Eye

Our eyes see over 20 million colors!



## 4. Coatings

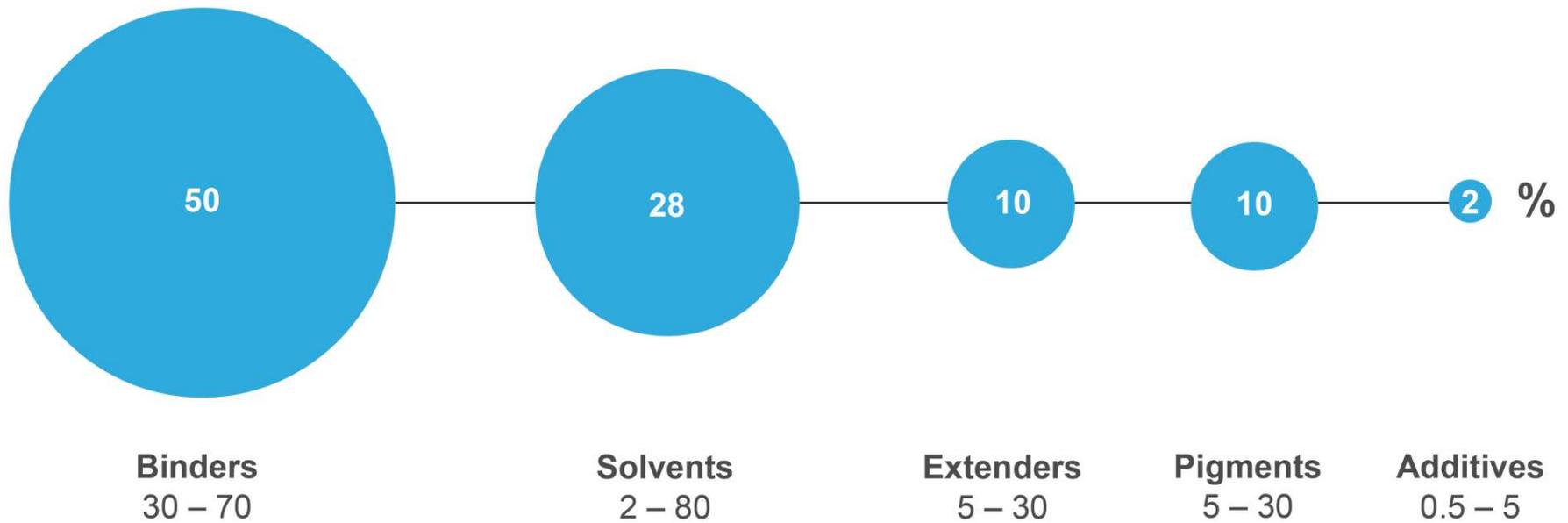
# Why coatings?



- Sustainable protection of values
- Decoration and embellishment
- Quality improvement and environmental protection

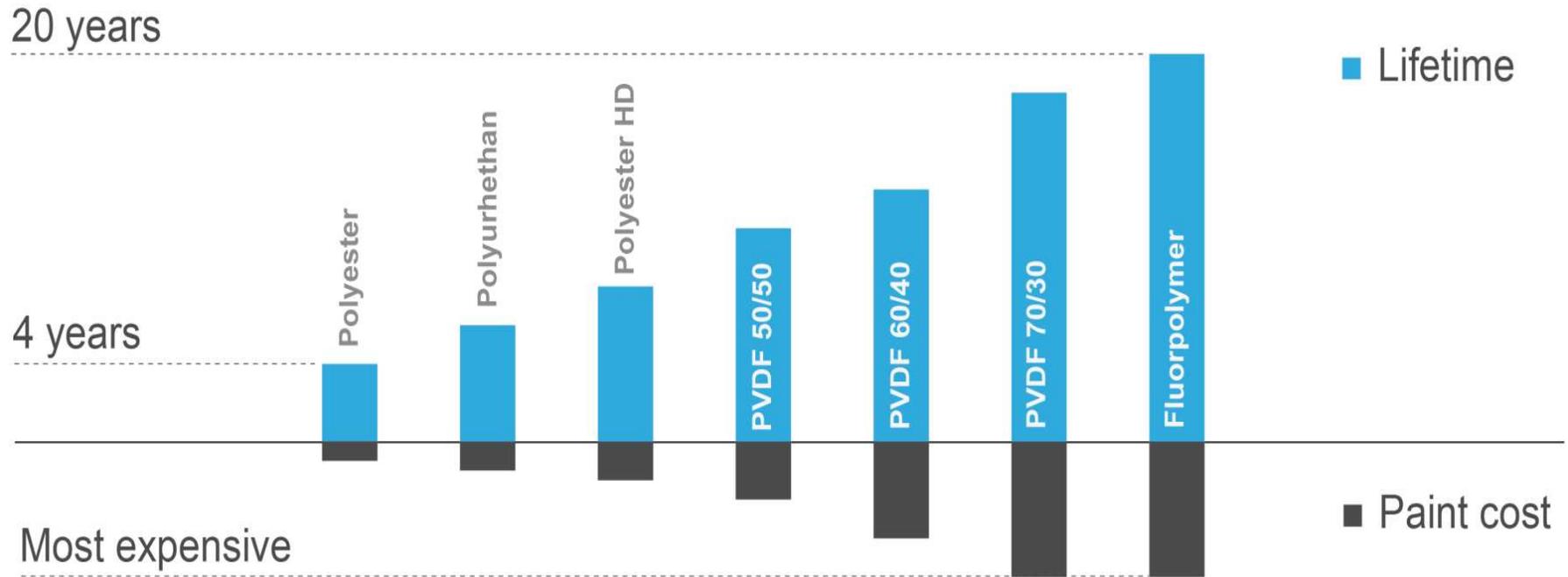


# Composition of a Paint



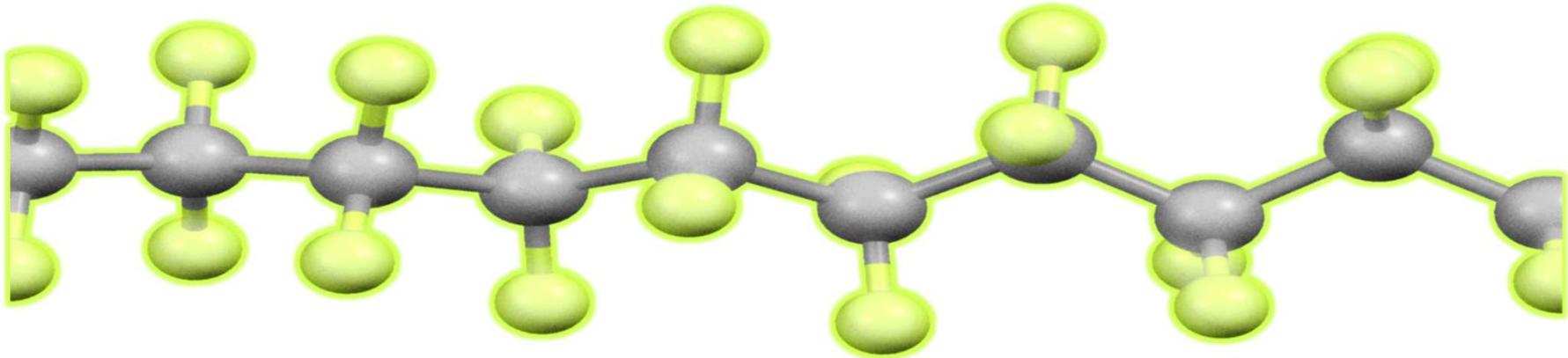


# Lifetime and Costs



# 5. Fluoropolymer Technology

# Fluorocarbons



**PTFE**

**PVDF**

**FEVE**

...

Polytetrafluor-  
ethylen

Polyvinyliden-fluorid

Fluorethylen-  
Vinylether

Teflon

Kynar 500  
Hylar 5000

Lumiflon

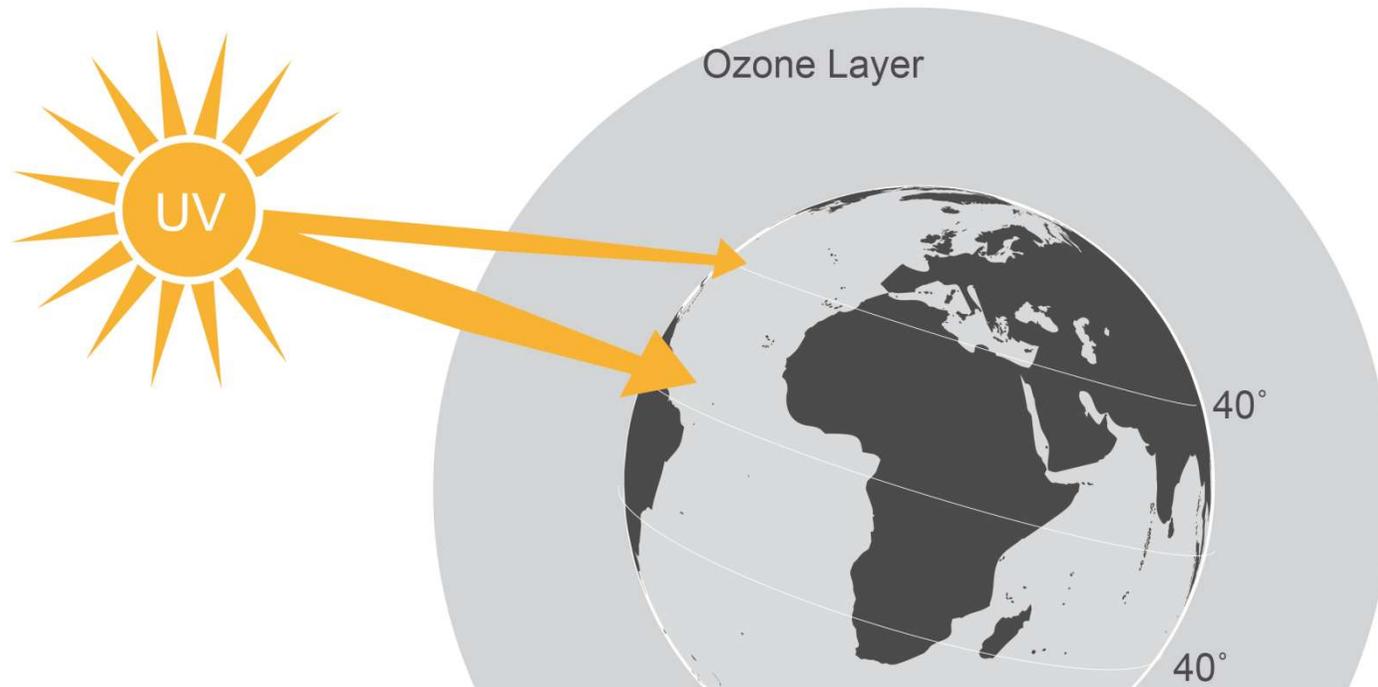


# Ultra-resistant FEVE coatings

- Fluoropolymer technology was introduced in the 1980s by AGC Chemicals Japan under the Lumiflon® brand.
- Fluoropolymer, FP, FEVE and Lumiflon® are synonyms.
- They stand for ultra-durable technology: excellent weather resistance, gloss and color fastness as well as chalking resistance.



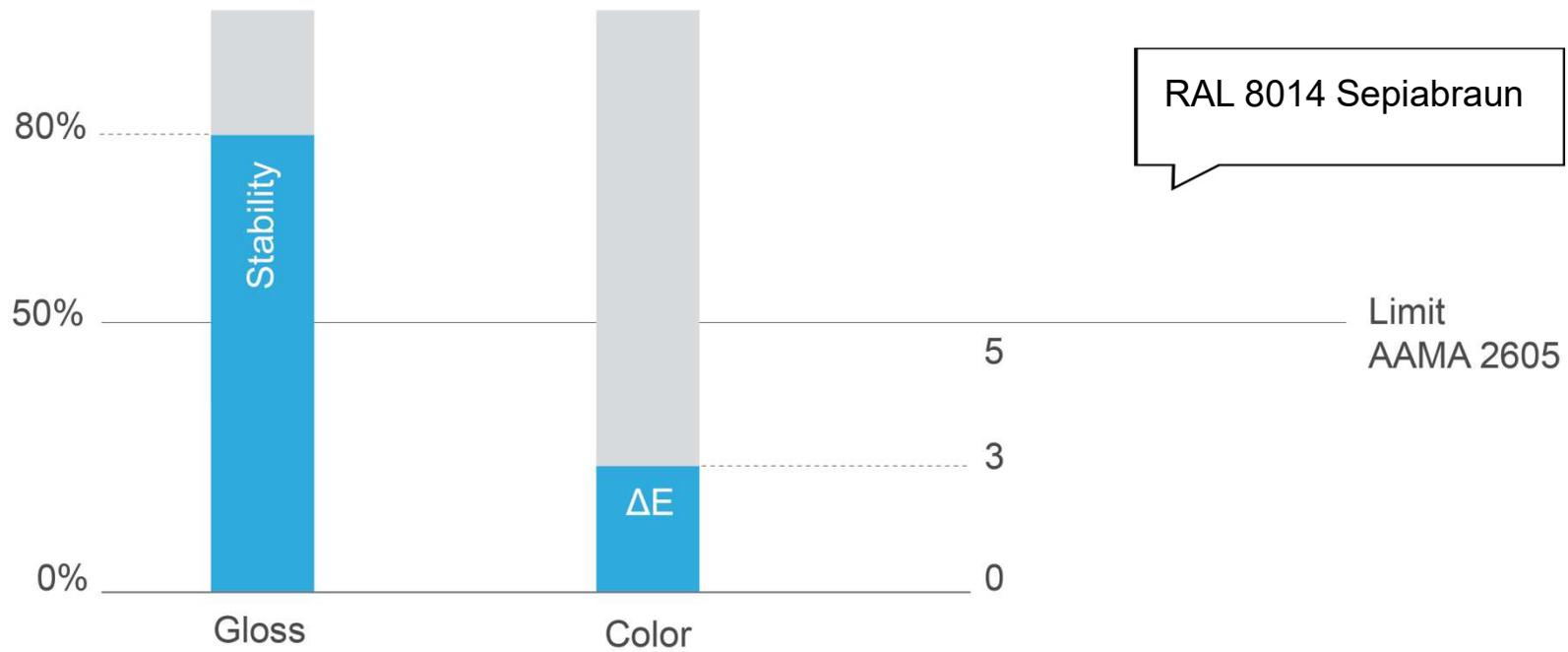
# UV Light



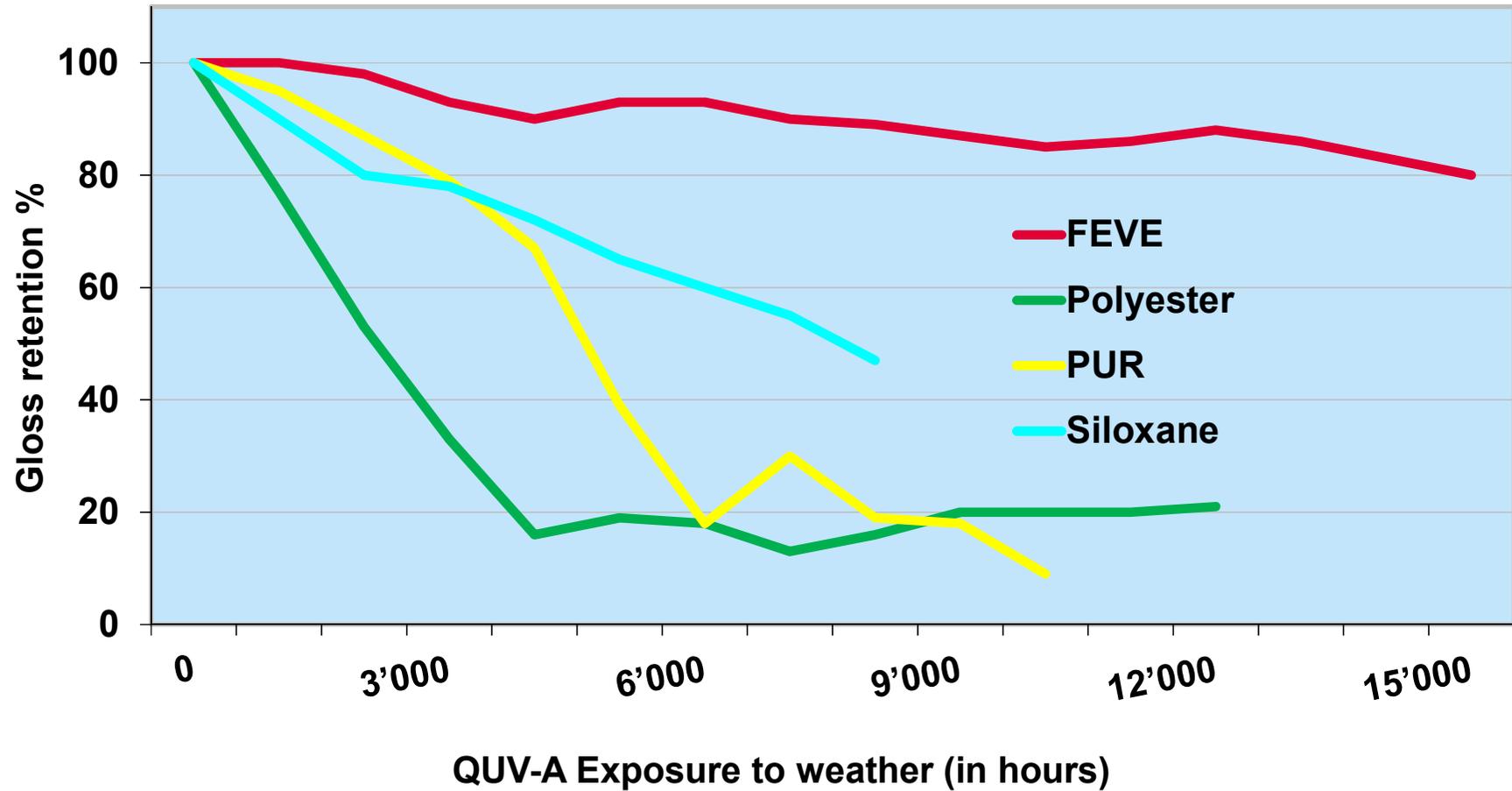
# Yearly Solar Radiation



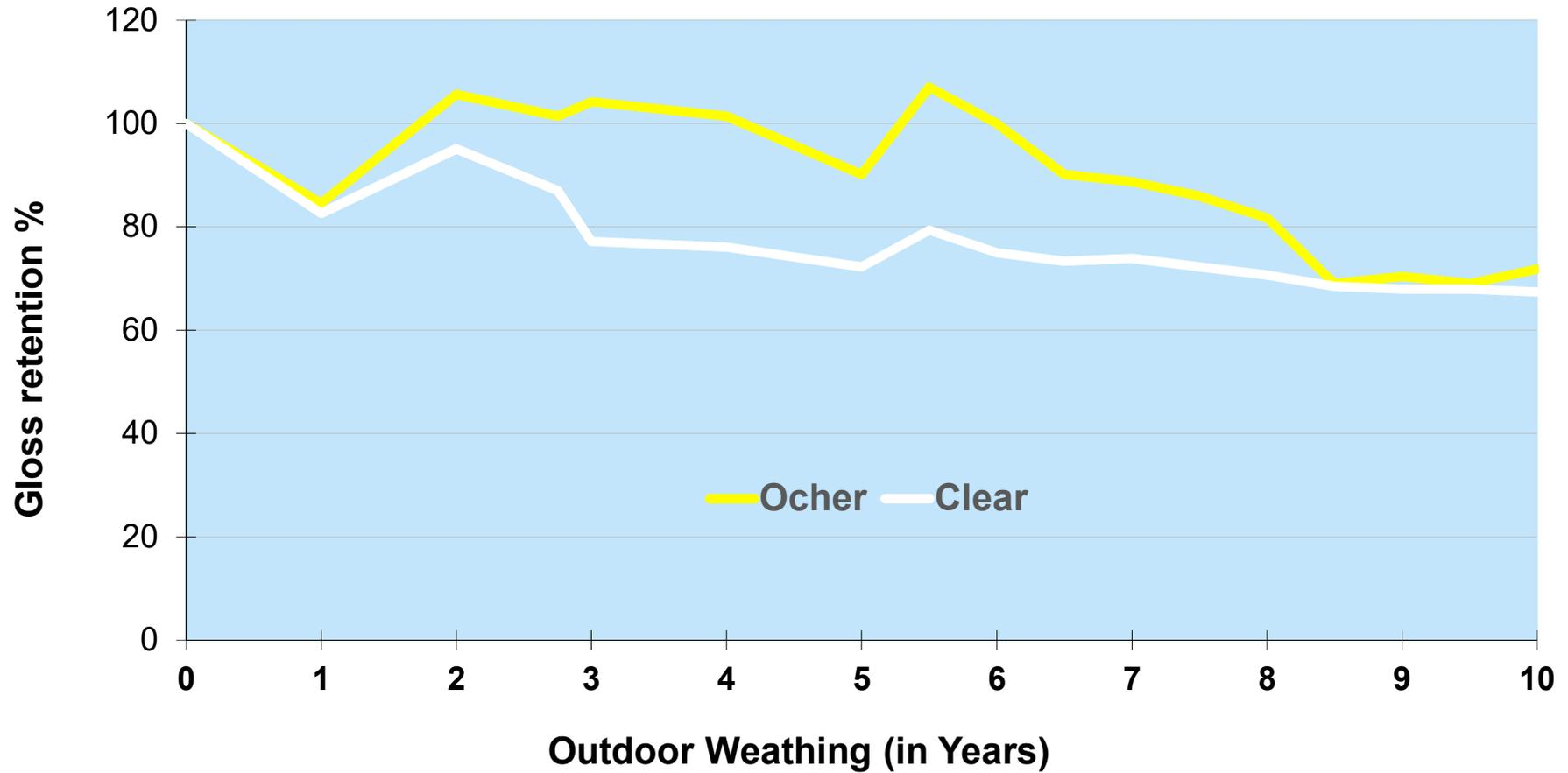
# 10 Years Florida Outdoor Exposure



# QUV-A Weathering test (ASTM D4587)



# Florida Outdoor Weathering (AAMA 2605)



# Evaluation of ultra-durability

Project partners:

AGC Chemicals and Japanese Ministry for Land, Infrastructure and Transport

Procedure:

- Site testing of test sheets since 1985
- Coating of 30 bridges throughout Japan (see map)
- Long-term testing of results compared to PU, chlorinated rubber and alkyd systems
- Evaluation of gloss development, color change, flaking, cracking



# Paint systems tested

a) Alkyd

Primer, intermediate and top coats (total 175  $\mu\text{m}$ )

b) Chlorinated rubber

Zinc dust primer / intermediate and top coat (total 185  $\mu\text{m}$ )

c) Polyurethane

Zinc dust primer / epoxy EG / PUR top coat (total 205  $\mu\text{m}$ )

d) Fluoropolymer

Zinc dust primer / epoxy EG / top coat (total 185  $\mu\text{m}$ )



# Test site results after 22 years

## Test site conditions

- Site: Hiroshima  
(Chugoku, Technical operation of Ministry for Land, Infrastructure and Transport)
- 1 km from the sea
- Start: Summer 1987
- Evaluation: Spring 2009

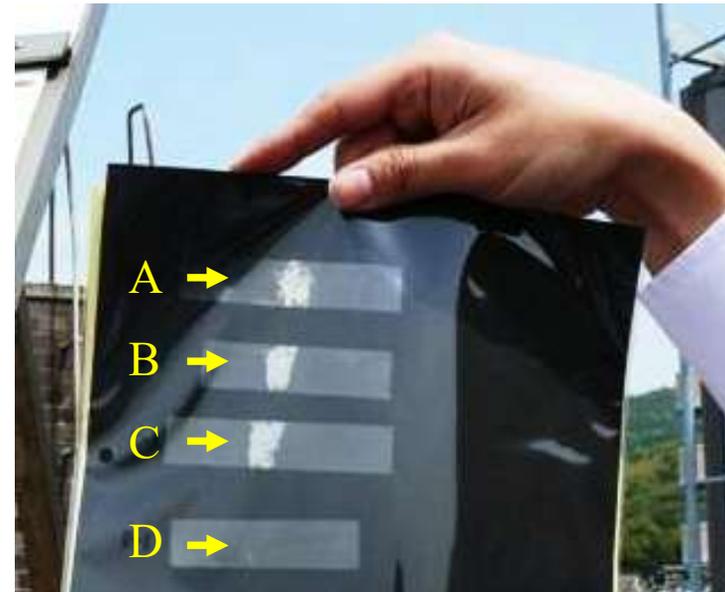


# Evaluation after > 20 years

Appearance



Chalking (adhesive tape test)

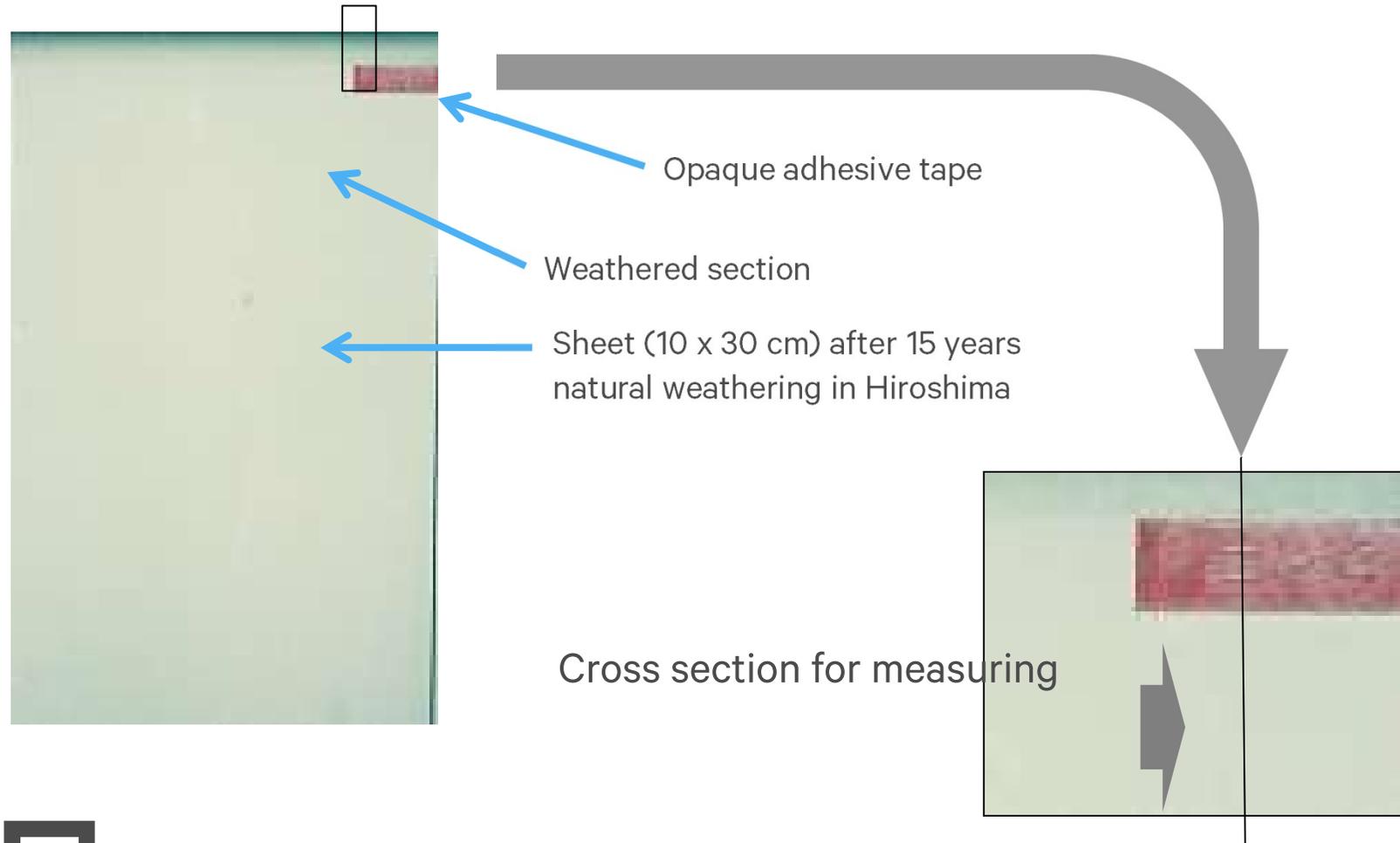


Fluoropolymer system (D): No chalking

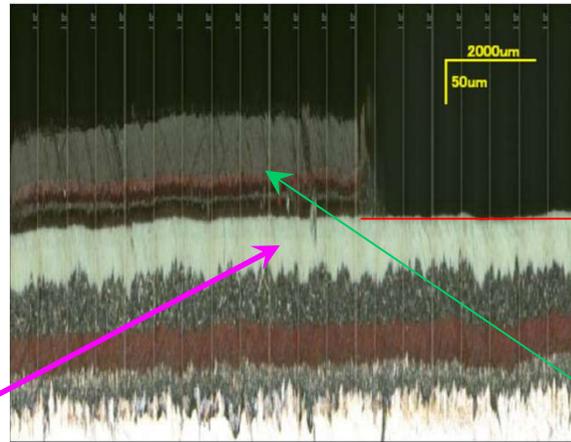
Polyurethane system (C): No top coat remaining



# Measuring of reduction in film thickness



FP System



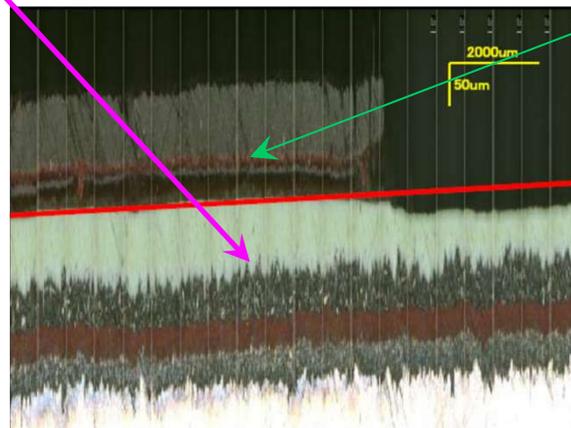
Reduction in film thickness

0 ~ 1.1 µm/15 years  
0 (0.0 ~ 0.1) µm/year

Top and intermediate coats

Adhesive tape

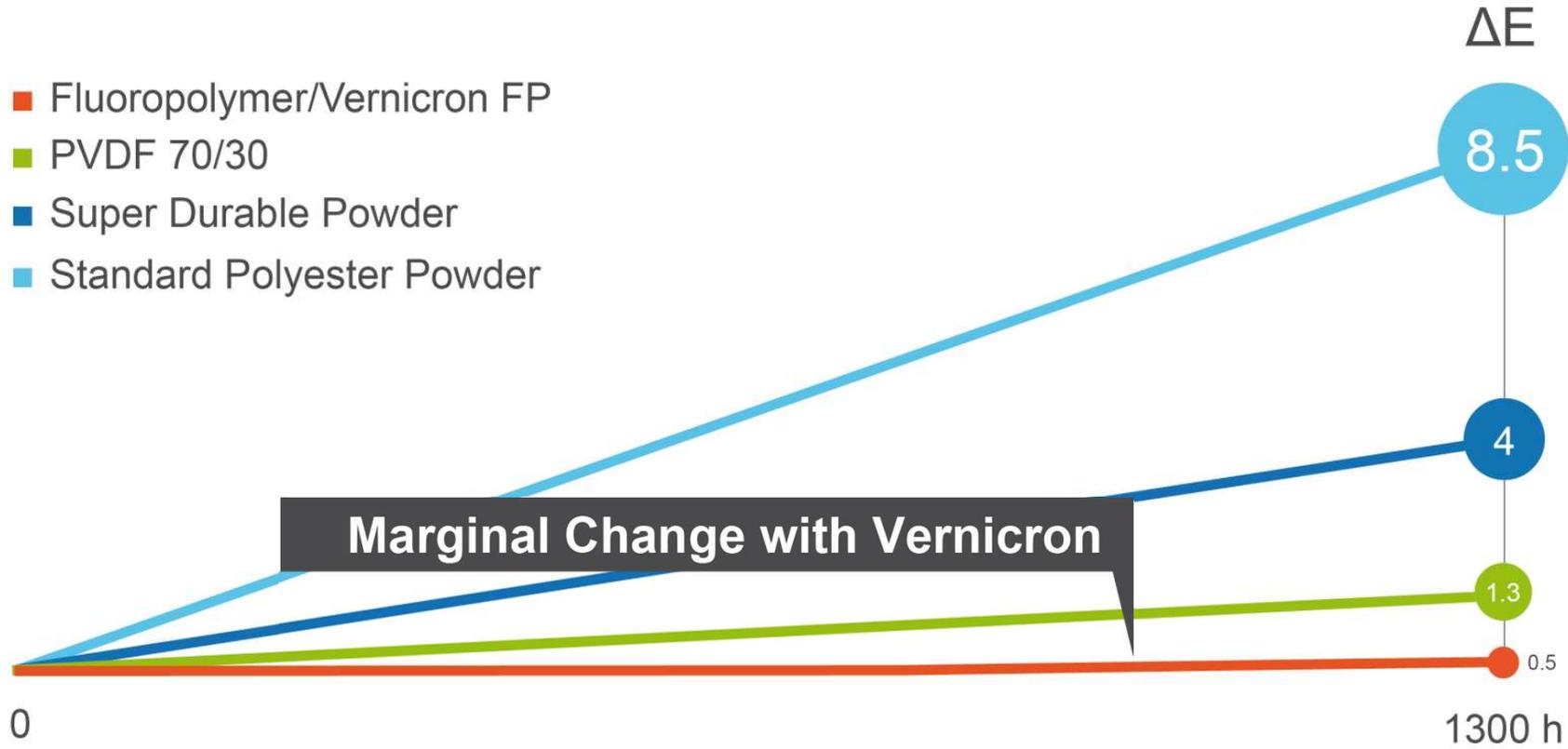
PU System



22 ~ 28 µm/15 years  
2 (1.7 ~ 2.2) µm/year



# QUV-B Radiation Color Change

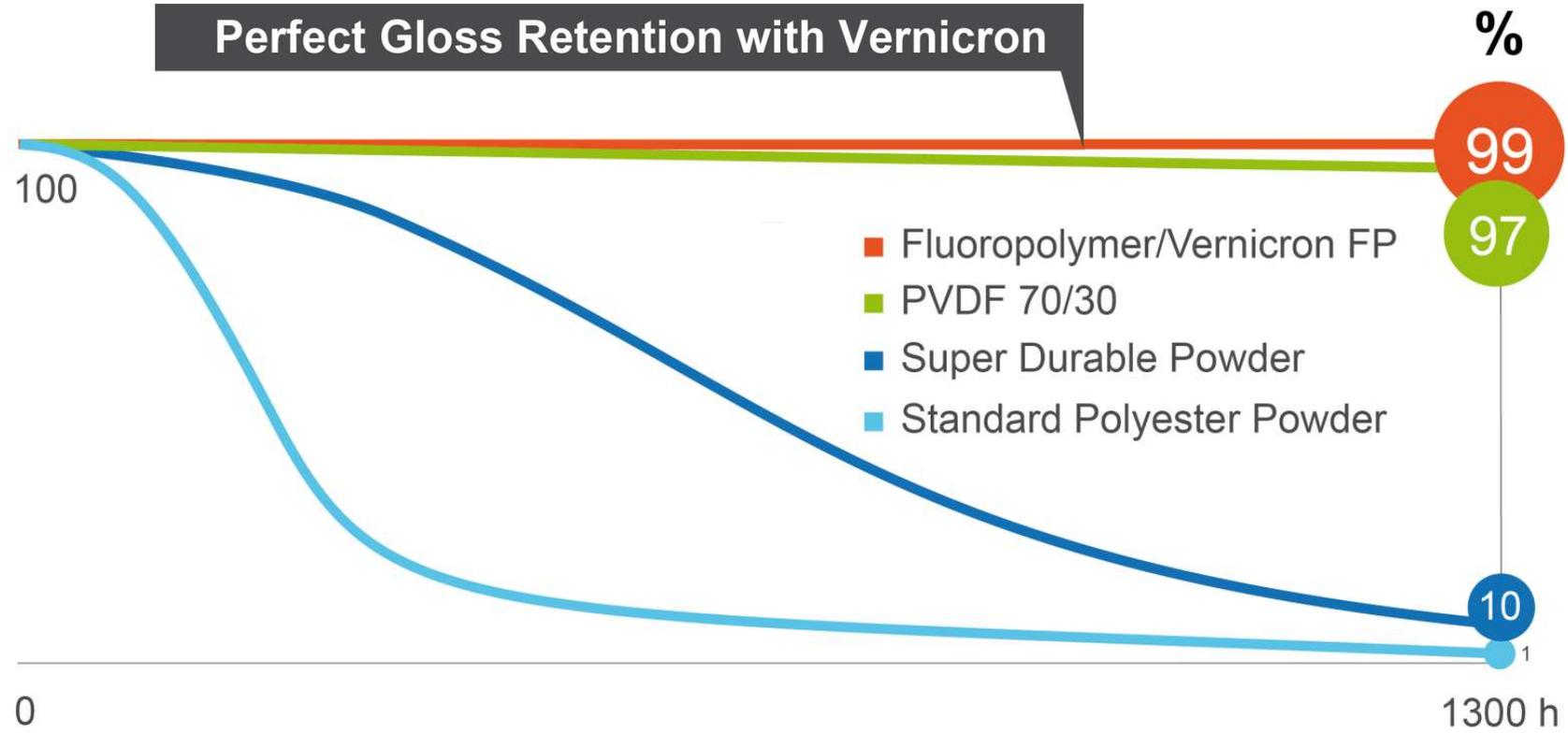


Marginal Change with Vernicron

RAL 5014 Pigeon Blue



# QUV-B Radiation Gloss



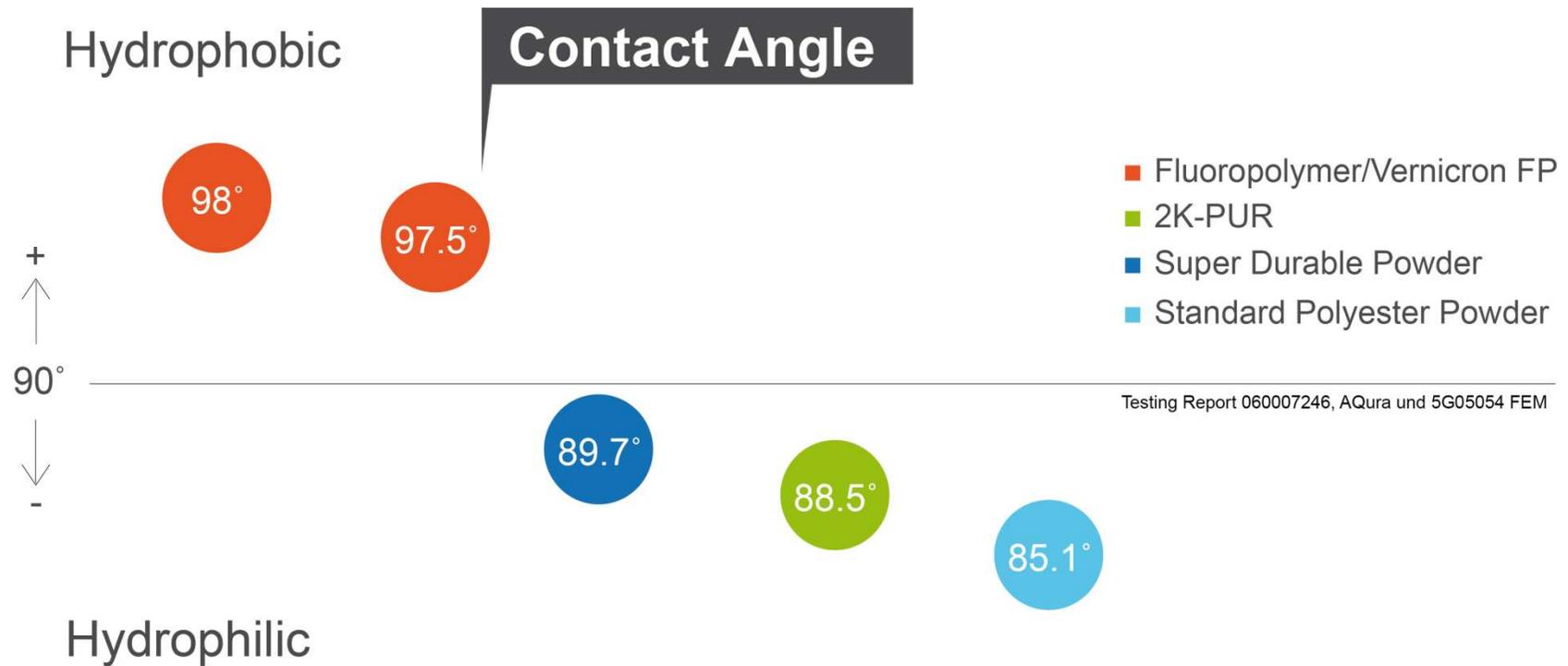
RAL 5014 Pigeon Blue



# Easy Graffiti-removal



# Hydrophobic Properties

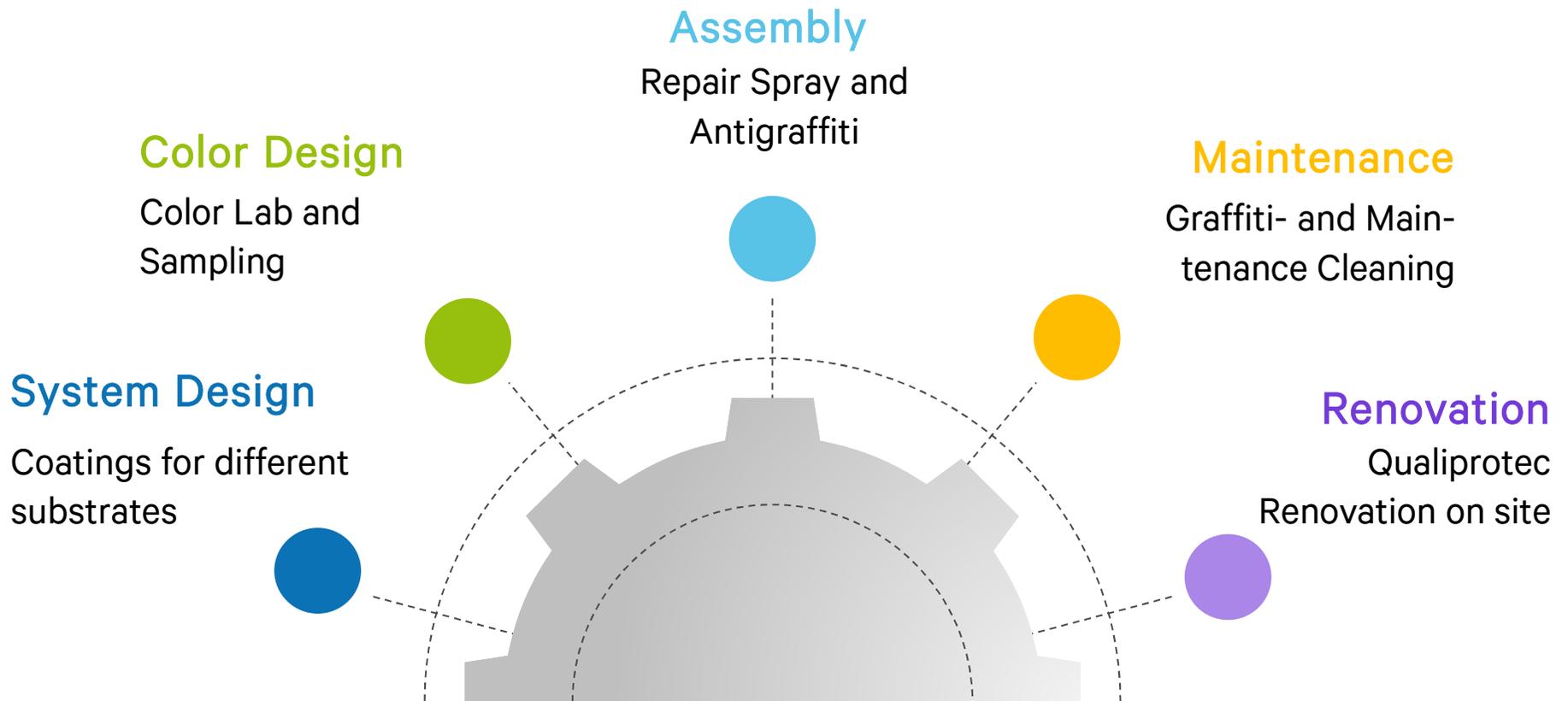


# Cleaning in 20 - 30 minutes

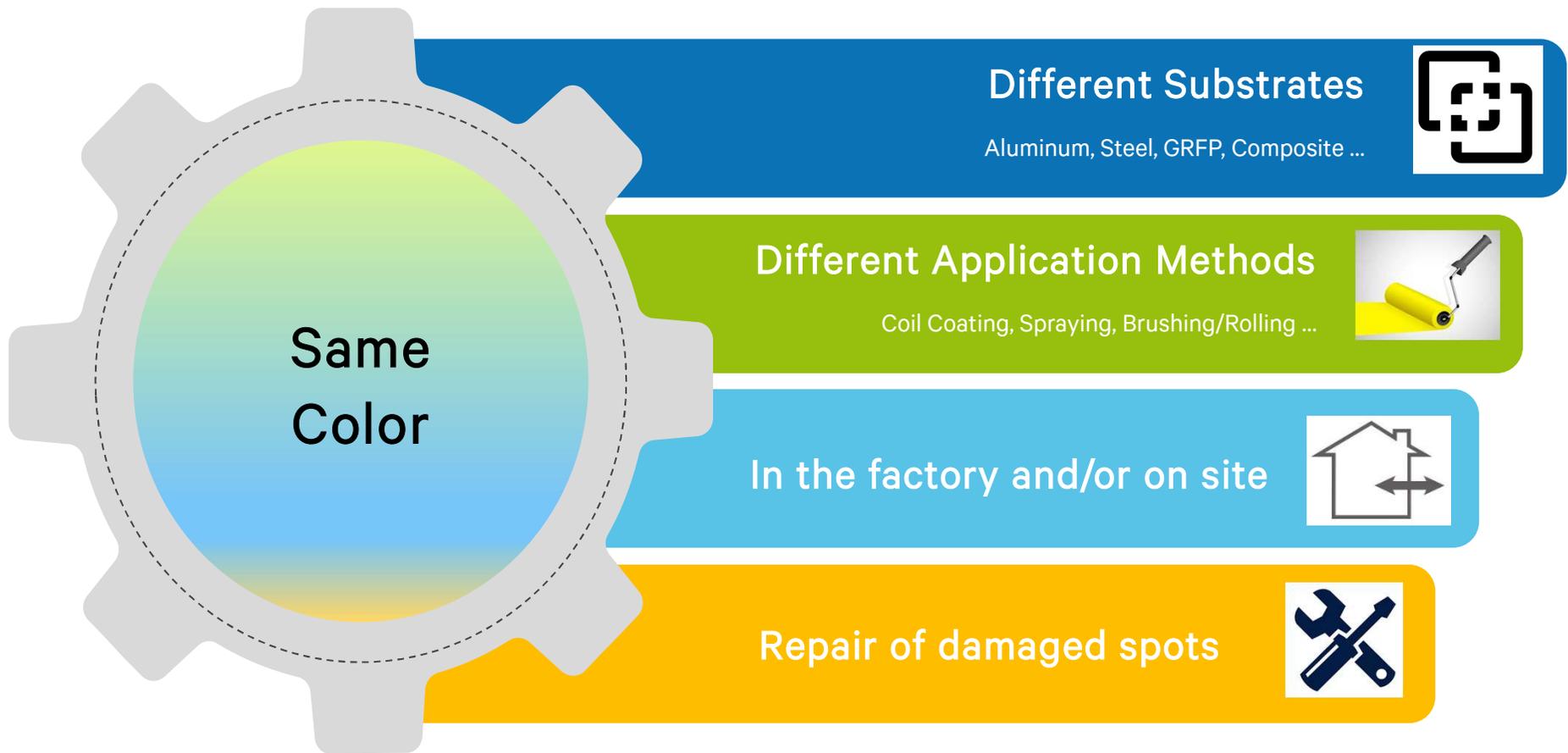


## 6. Service

# All-round Worry-free Package



# System Design: Requirement Architecture



# Color Design



## All-round Fluoropolymer Coatings

- From matt to glossy (< 10 E - 85 E)
- Anodised, micaceous iron oxide and metallic colours
- Special effects (e.g. prismatic coatings)
- For coil coating, spray painting, painting/rolling
- Stove enamelling, forced drying, air drying

And:

- Color Lab «20 million colors as desired»



# Qualiprotec facade renovation



Mazda Prüf- und Testlabor, Leverkusen (D), 2013



# Costs for quality and individuality

Color Lab + standard samples are free of charge



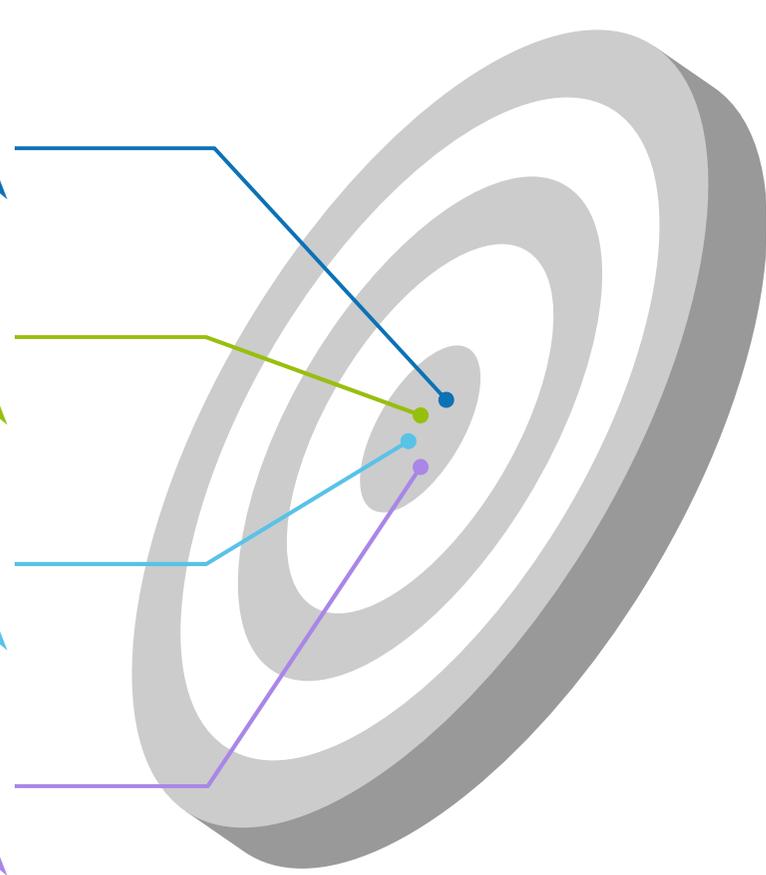
No minimum quantities



Color and gloss guarantee up to 20 years



Everything from a single source





## 7. References

# ARCHITECTURE PROJECTS



Apple Campus 2,  
Cupertino (U.S.)



Mercedes-Benz Museum,  
Stuttgart (GER)



Hamburg Airport Helmut  
Schmidt, Hamburg (GER)



Otto Bock Science Center,  
Berlin (GER)



Public School,  
Lengfeld (GER)



Shopping Mall Mira,  
Munich (GER)



Skyline Plaza, Frankfurt (GER)



Stadtgalerie (i.e., City Gallery),  
Passau (GER)



Diagonal Office Building,  
Barcelona (ESP)



Vigo Hospital (ESP)



Bus and Train Terminal,  
Arnhem (NED)



Power Plant,  
Wurzburg (GER)



# ARCHITECTURE PROJECTS

---



Spiegelaluminium Lumix Brétigny (F)



Mirrorpavillon Galway (IRL)



Galerie Mohabit Berlin (D)



Wielandhaus Aarau (CH)



Rohde & Schwarz München (D)



Vorfahrt Flughafen Zürich (CH)



3-Länder Galerie, Weil a.Rhein (DE)



Bexco Auditorium, Busan (KOR)



Mryia Sanatorium, Jalta (UKR)



# Recent Projects



Google Campus, Bay View + Charleston East (U.S.) – Colored Photovoltaic



Terminal E Logan Airport, Boston (U.S.) – Prismatic Red+Gold



Karle Town Centre, Bengaluru (IND) – Cooling Down the Planet with Paint



# Contact

**[www.monopol-colors.com](http://www.monopol-colors.com)**

**[www.facebook.com/monopolcolors](https://www.facebook.com/monopolcolors)**

Monopol AG

Oberrohrdorferstrasse 51

CH-5442 Fislisbach

Switzerland

Tel. +41 56 484 77 77

Monopol India Pvt. Ltd.

Plot No. N42, Additional Patalganga

Ind. Area, Tal. Panvel, Dist. Raigad

India

Tel +91 22 2769 8242

Monopol East Africa Ltd.

Baricho Road, Bldg 7,

KE-00100 Nairobi

Kenya

Tel. +254 790 307 555



The Center of Excellence for Paints



SHOW YOUR COLORS



**MONOPOL**  
COLORS

The Center of Excellence for Paints