



PAVING THE ROAD FOR THE NEXT GENERATION



## STORY

EKO YOL WAS FOUNDED IN 2012 AND IS ENGAGED IN THE SEARCH FOR THE BEST WAYS TO PROLONG THE LIFE OF ASPHALD PAVEMENT BY DEVELOPING A PRODUCT THAT PRESERVES THE PAVEMENT FOR A LONG TIME WITHOUT COMPROMISING PROBLEMS ENVIRONMENT LIKE THE GREENHOUSE EFFECT. OUR REPUTATION IS BUILT ON EXCELLENCE IN ROAD MAINTENANCE.

EKO YOL HAS THE ABILITY AND EXPERTISE TO PROVIDE ALL THE MATERIALS, LABOR AND EQUIPMENT NEEDED FOR ROAD MAINTENANCE. INTERNAL MONITORING OF ALL ASPECTS OF THE PROJECT IMPROVES QUALITY CONTROL AND PROVIDES A BETTER END PRODUCT FOR OUR CUSTOMERS.

TODAY, WITH CANADIAN RESEARCH AND DEVELOPMENT DIVISIONS, WE HAVE IMPROVED OUR PRODUCTS BY INVESTING IN ENGINEERING AND SCIENTIFIC PRACTICE.

OUR EXPERIENCE IS NOT LIMITED TO CONSERVING OR CONSERVING INFRASTRUCTURE, WE ALSO INTERVENE IN ASPHALD AND CONCRETE PAVING, AS WELL AS MOST RELATED WORK, INCLUDING REPAIR, ROAD STABILIZATION AND DUST PREVENTION.

THIS LEGACY CONTINUES TODAY, EKO YOL IS NOW MORE ACCESSIBLE THAN EVER!

ENJOY YOUR VISIT AND SEE YOU VERY SOON,

**“PAVING THE WAY FOR THE NEXT GENERATION AND BEYOND”**

# CHANGING THE PERSPECTIVE

## OUR GOAL

- REVOLUTIONIZE THE WAY ASPHALT IS MAINTAINED.
- CHANGE THE ATTITUDE THAT TREATS ASPHALT AS DISPOSABLE.



# ASPHALT PAVEMENT

- UNSTABLE PRICE AND MORE EXPENSIVE
- NEEDS REGULAR MAINTENANCE.
- CRACKS & DEFORM
- WIDE RANGE OF MACHINERY TO BUILD.
- LIMITED LIFESPAN
- SIGNIFICANT ENVIRONMENTAL IMPACT



## INDUSTRY NEEDS...

- A STRONG WEARING SURFACE THAT IS UNAFFECTED BY U.V., WATER, OIL, DIESEL, AUTOMOTIVE FLUIDS, AND GASES, WHICH PROTECTS AND EXTENDS THE LIFE OF ASPHALT PAVEMENT.
- A PAVING MATERIAL THAT IS COST EFFECTIVE THAT WILL SIGNIFICANTLY REDUCE MAINTENANCE COSTS.
- A PAVING MATERIAL THAT ELIMINATES THE NEED FOR TOXIC AND TEMPORARY SEALING MATERIALS.
- AN ENVIRONMENTALLY SAFE PRODUCT THAT HAS HIGH SOLAR REFLECTANCE.
- A STAND-ALONE PAVING MATERIAL THAT IS NOT AFFECTED BY OIL PRICES.
- A PAVING MATERIAL THAT ENHANCES THE COMPETITIVENESS OF ASPHALT WITH CONCRETE (SUPERAVE TECHNOLOGY).

**WE NEED A**  
**CHANGE!**

# THE REVOLUTIONARY PAVING TECHNOLOGY

# **EKO-SEAL HPPCO®**

® ALL RIGHTS RESERVED AND BELONGS TO EKO YOL





**HIGH  
PERFORMANCE  
POLYMERIC  
COMPOSITE  
OVERLAY**



# 8mm. PROTECTIVE CRUST OVER THE ASPHALT PAVEMENT



# **EXTENDING ASPHALT LIFE FOR MORE THAN 20 YEARS**







# DESIGNED TO FIT!

EKO-SEAL DESIGNED TO BE APPLIED OVER

- NEW ASPHALT
- OLD & OXIDIZED ASPHALT
- SPALLED CONCRETE
- ROLLER COMPACTED CONCRETE
- PROPERLY PREPARED METAL SURFACES





**BEFORE**

**AFTER**

**DURING APPLICATION  
CRACKS ARE FILLED  
AND THE STONES ARE  
CEMENTED INTO PLACE**





# RUT REPAIR

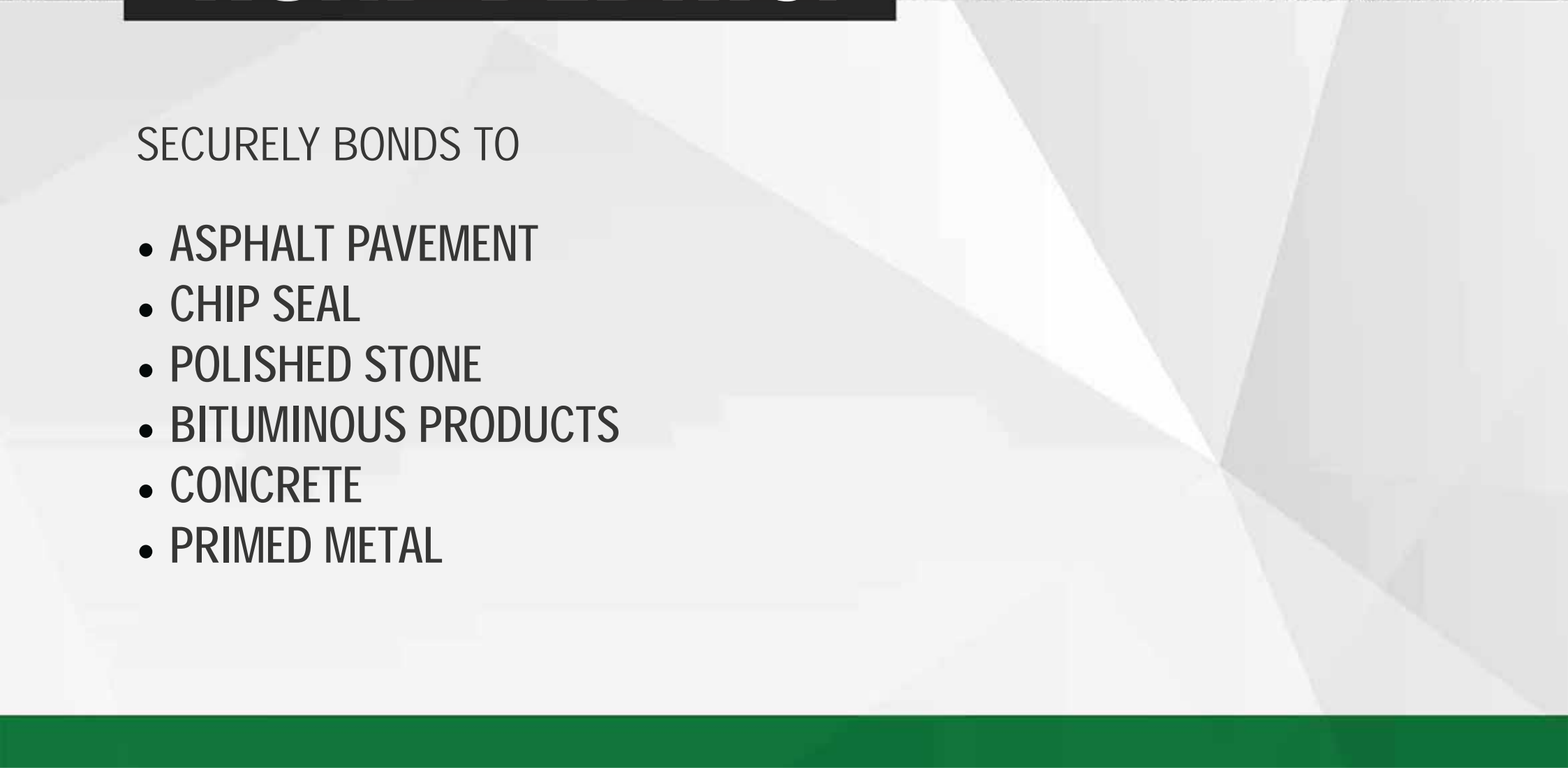




**NO MORE**

**ROAD DEBRIS!**

SECURELY BONDS TO

- ASPHALT PAVEMENT
  - CHIP SEAL
  - POLISHED STONE
  - BITUMINOUS PRODUCTS
  - CONCRETE
  - PRIMED METAL
- 



# NO MORE BROKEN WINDSHIELDS!

- ELIMINATES BOUNCING ROAD DEBRIS & AGGREGATES
- SAFE DRIVE FOR DRIVERS, VEHICLES.



# WHEREVER YOU LIKE!

## EKO-SEAL IS APPLICABLE

- HIGHWAYS
- URBAN ROADS
- ROAD TUNNELS
- CAR PARKS
- PEDESTRIAN WALKWAYS
- AIRPORT TAXIWAYS
- RACING TRACKS
- BRIDGES
- PORTS
- BICYCLE PATHS
- WALLS AND ROOFTOPS





# **GLOBAL WARMING** & **CLIMATE CHANGE**

FOSSIL FUELS AND CARBON DIOXIDE EMISSIONS THREATEN OUR WORLD





**ASPHALT PAVEMENTS  
COVER MORE THAN**

**200**

**BILLION M<sup>2</sup>**

**ON THE EARTH SURFACE.**

# **ASPHALT PAVEMENTS GENERATE TOXIC FUMES & CARCINOGENIC PETROLEUM HYDROCARBONS**



# SERIOUS PUBLIC HEALTH ISSUES

- CANCER
- ASTHMA
- NAUSEA
- HEADACHES
- SKIN RASH
- BRONCHITIS
- WATER POLLUTION



# EKO-SEAL THINKS **GREEN!**

~~NO TOXICS  
NO OIL  
NO BITUMEN  
NO SOLVENT~~



PREVENTS THE EMISSION OF ALL TOXIC MATERIALS FROM ASPHALT



# ASPHALT

- CAPTIVATES THE HEAT FROM THE SUN.
- RELEASES HEAT THROUGHOUT THE NIGHT.
- CAUSES URBAN HEAT.





The image shows a side-by-side comparison of two asphalt surfaces. On the left is a dark, textured surface of uncoated asphalt. On the right is a lighter, smoother surface of asphalt treated with EKO-SEAL sealant. A vertical crack runs down the center, separating the two samples. A yellow strip is visible at the bottom right corner.

**UNCOATED  
ASPHALT**

**EKO-SEAL  
OVER ASPHALT**

# AVERAGE OF SURFACE TEMPERATURES

WHEN THE AIR TEMPERATURE IS 25°C



MATERIAL	AVERAGE SURFACE TEMPERATURE (°C)
ASPHALT	104°F
PAVERS	98.6°F
CONCRETE	91.4°F
GRASS	77°F
STUDIES BY UNIVERSITY OF CALIFORNIA, BERKELEY, K.GUAN, 2011	
EKO SEAL	84.2°F



# URBAN HEAT ISLAND

- THE TERM IS DESCRIBED BY THE EPA (US ENVIRONMENTAL PROTECTION AGENCY) AS URBAN AREAS THAT ARE USUALLY WARMER THAN THEIR RURAL SURROUNDINGS.
- ASPHALT PAVED AREAS, CAN ABSORB AND STORE MUCH OF THE SUN'S ENERGY CONTRIBUTING TO THE URBAN HEAT ISLAND EFFECT, ACCOUNTED FOR NEARLY 30 TO 45 PERCENT OF LAND COVER.
- ACCORDING TO EPA, THE ANNUAL MEAN AIR TEMPERATURE OF A CITY WITH 1 MILLION PEOPLE OR MORE CAN BE 1–3°C WARMER THAN ITS SURROUNDINGS.



THIS INFRARED IMAGE DEMONSTRATES THAT THE LIGHTER PAVEMENT (BOTTOM) IS ABOUT 17°C (62°F) COOLER THAN THE DARK PAVEMENT (TOP).

(PHOTO- BERKELEY NATIONAL LABORATORY)



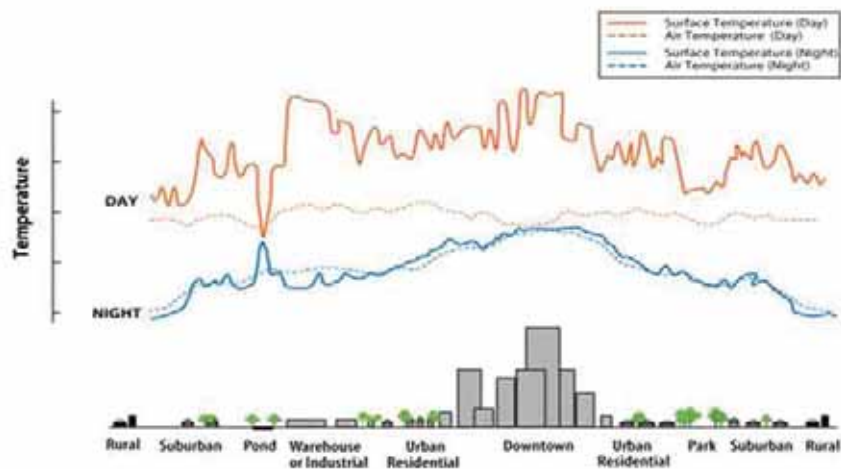
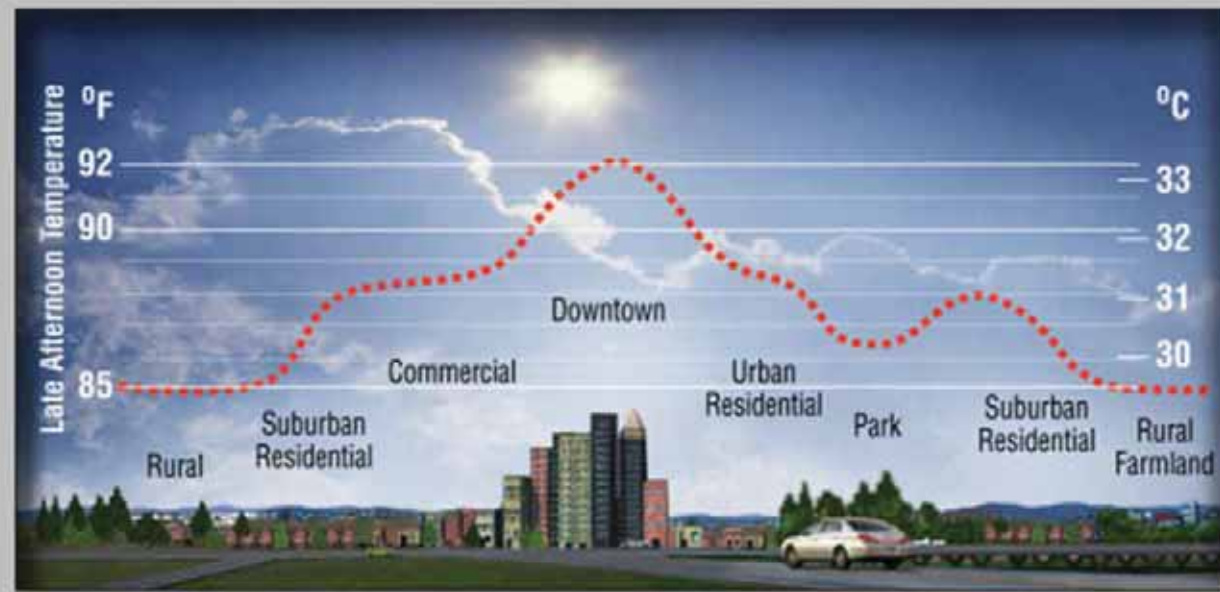
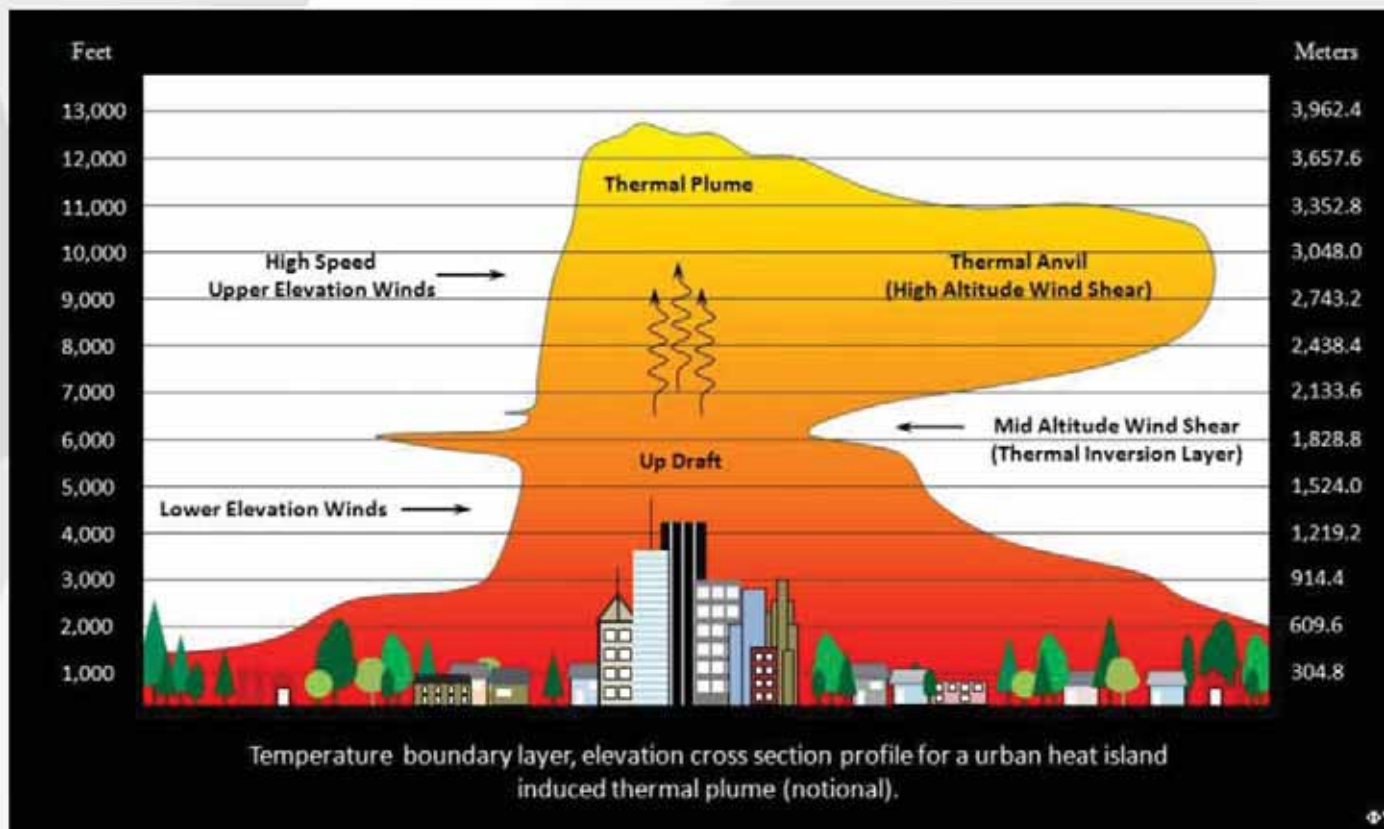


Figure 1. Typical Urban Heat Island Profile  
(Source: U.S. EPA<sup>3</sup>)



# URBAN THERMAL PLUME



**HIGH  
SOLAR  
REFLECTIVE**



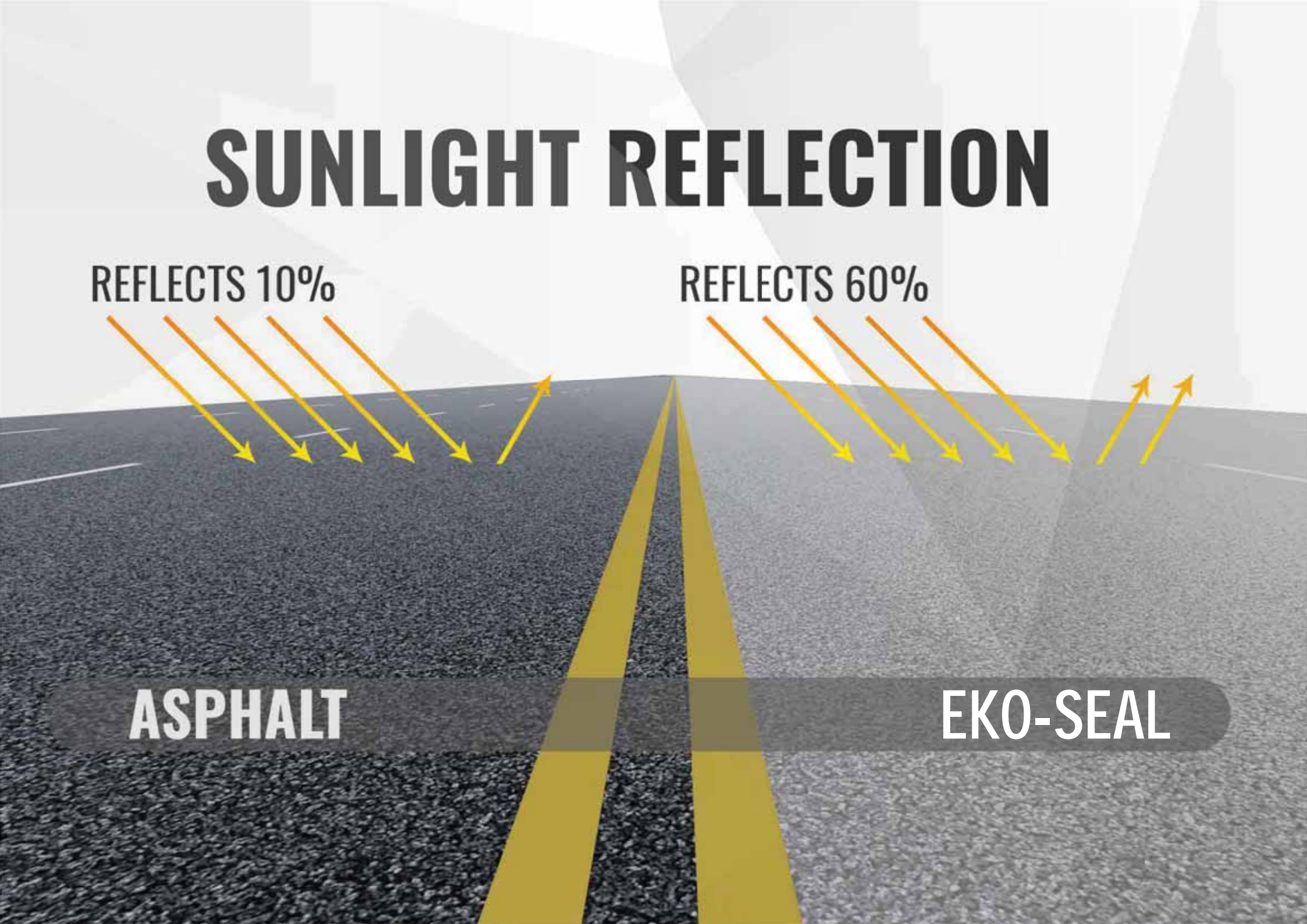
# SUNLIGHT REFLECTION

REFLECTS 10%

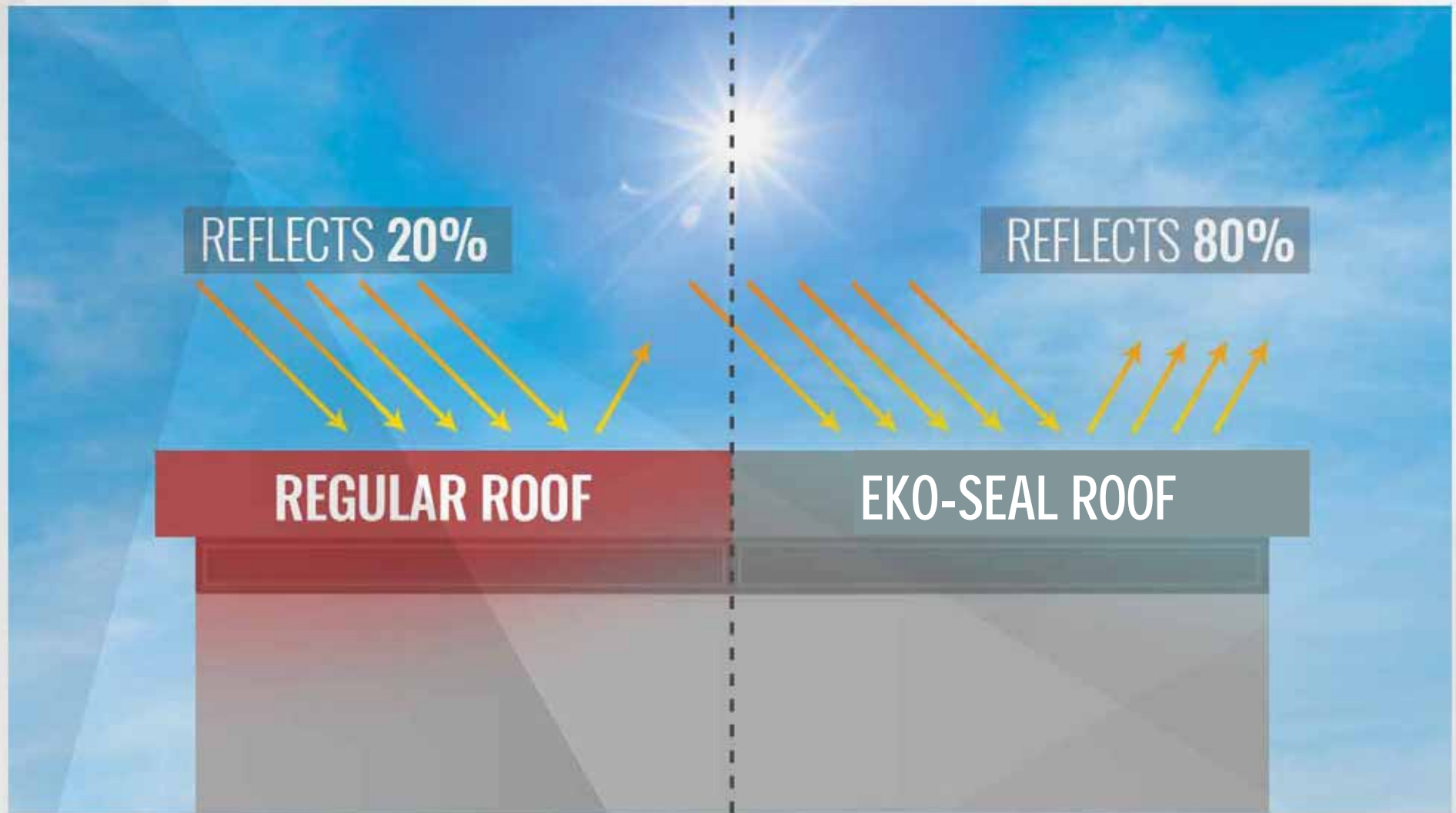
REFLECTS 60%

**ASPHALT**

**EKO-SEAL**





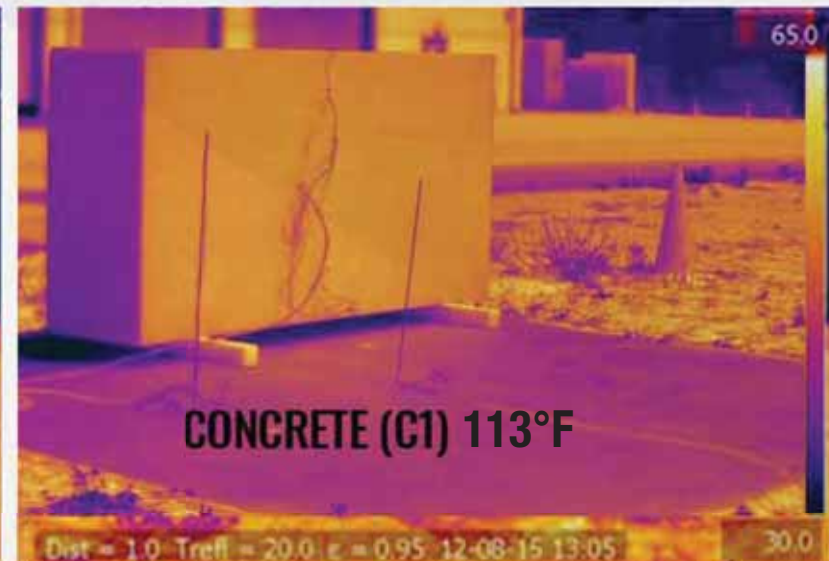


*HEAT ISLAND GROUP, LBNL*

# HEATING OF SURROUNDINGS BY REFLECTED RADIATION



THERMAL IMAGES AT 13:00 8/15/2012



LIGHTER IS HOTTER, RANGE 30 TO 149°F

**REDUCES URBAN HEAT BY UP TO  
50°F DEGREES**



**PROVIDES SIGNIFICANT DECREASE IN ENERGY  
DEMAND FOR AIR CONDITIONING**

# BEST PRICE

**FOR BEST PERFORMANCE!**

- EXTREMELY COST EFFECTIVE
- THE LEAST EXPENSIVE & THE ONLY PAVEMENT PRESERVATION AVAILABLE MATERIAL.





# MAINTENANCE FREE!

- . NO EXTRA BUDGET.
- . NO REPAIRING COST.
- . NO EQUIPMENT & FUEL COST.
- . NO LABOR COST.
- . NO OPPORTUNITY COST.





# **BORN TO RESIST!**

- . WATER
- . ULTRAVIOLET LIGHTS
- . OXIDATION
- . CHEMICAL SPILLS
- . SALT
- . DEICING FLUIDS



# SOLAR HEAT TEST

A 5 CM THICK SLAB OF ASPHALT WAS TREATED HALF WITH THE **EKO-SEAL HPPCO®**, AND THE OTHER HALF LEFT UNTREATED. THE PANEL WAS THEN EXPOSED TO SUNLIGHT FOR 5 HOURS IN 98.6°F HEAT





# CHIP SEAL

TEMPERATURE  
DIFFERENTIAL CRACKS





# **MOST DURABLE EVER!**

- **NO FADING**
- **NO PEELING**
- **NO DE-LAMINATION**



A photograph of a snowy road with tire tracks, partially covered by a large, translucent white sheet. The background shows a dark, wooded area.

# **BOLD IN THE COLD!**

PERFECT SOLUTION FOR COLD CLIMATES AND ICY CONDITIONS.

UNAFFECTED BY SNOW PLOWING, ROAD SALTING AND  
DE-ICING CHEMICALS WHICH CAUSE POTHOLES.



# LET IT RAIN!

## GROOVED ANTI HYDROPLANE SURFACE

THE GROOVES ARE CUT PERPENDICULAR  
TO THE CENTERLINE TO DRAIN OFF  
THE RAIN WATER





A close-up photograph of an asphalt road surface. The asphalt is dark grey and composed of small, irregular aggregate particles. There are several bright yellow paint markings on the surface, which appear to be faded and peeling in some areas, revealing the underlying aggregate. The overall texture is rough and granular.

**OXYDATION BY RAIN WATER AND U.V. CAN DESTROY ASPHALT**



**UNCOATED**



**EKO SEAL HPPCO®**



# EASY TO APPLY!

TOTALLY COLD-MIX APPLICATION

PLACING WITH PLASTIC BRUSH

NO BIG MACHINERY EQUIPMENT REQUIRED

NO MILLING





## NIGHTTIME VISIBILITY

EKO SEAL HPPCO®

ASPHALT





# EKO-YOL FULLY AUTOMATED, **HIGH VOLUME** PLACER & SPREADER



# ASPHALT PAVEMENT MACHINERY



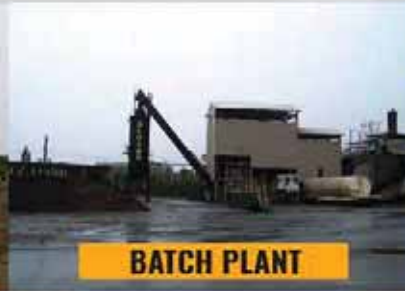
**MILLING MACHINES**



**GRADERS**



**SWEEPERS**



**BATCH PLANT**



**DRUM PLANT**



**DUMP TRUCKS**



**MATERIAL TRANSFER  
VEHICLES**



**ASPHALT PAVERS**



**STEEL WHEEL ROLERS**



**PNEUMATIC TIRE ROLLERS**



# ASPHALT PAVEMENT



- WIDE RANGE OF MACHINERY
- INTENSE WORKFORCE
- HEAVY BUDGET & FUEL COSTS

# EKO-SEAL



- 1 TRUCK
- 4 UNSKILLED EMPLOYEES
- AFFORDABLE PRICES & EASY PLANNING



# KEEPS TRAFFIC IN FLOW!

MINOR IMPACT ON VEHICLE ACTIVITY



TAKES 30 MINUTES TO DRY



# INCREASED FRICTION

- . OPTIMIZED ROAD HANDLING AND BRAKING PERFORMANCE.
- . SAFE AND DESIRABLE FRICTION VALUES

MULTIPLE FRICTION TESTS ON 91.4 MT SITE, AT 64 KM/H. AVERAGE FN NUMBER OF 51.1, A HIGH FN OF 51.8 AND A LOW FN OF 50.4.



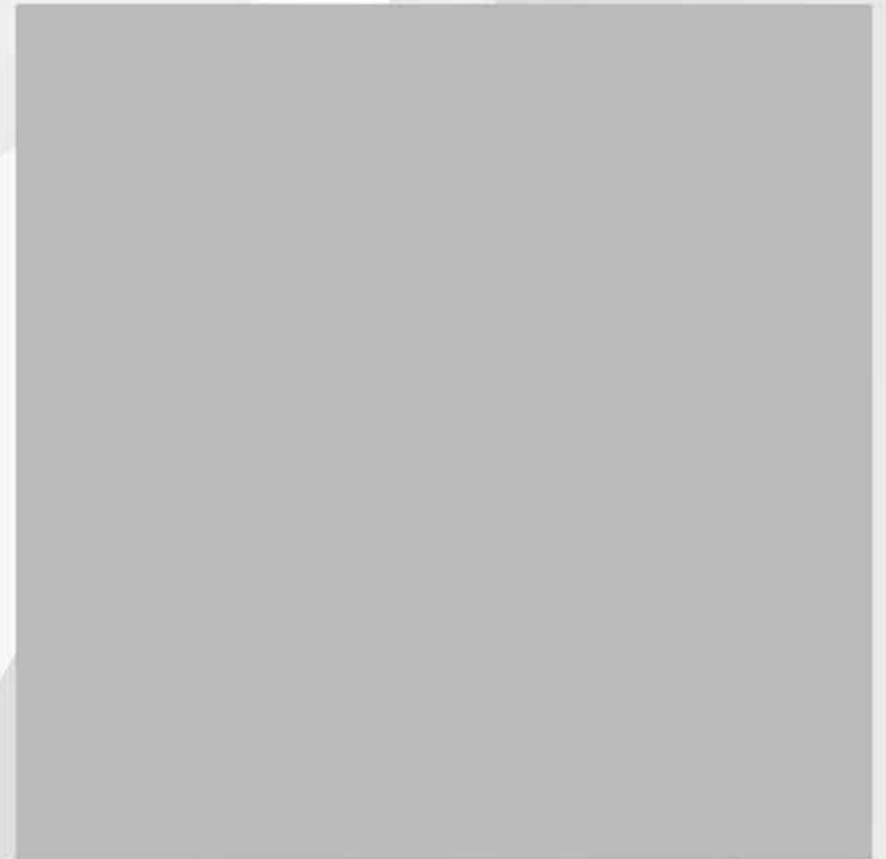
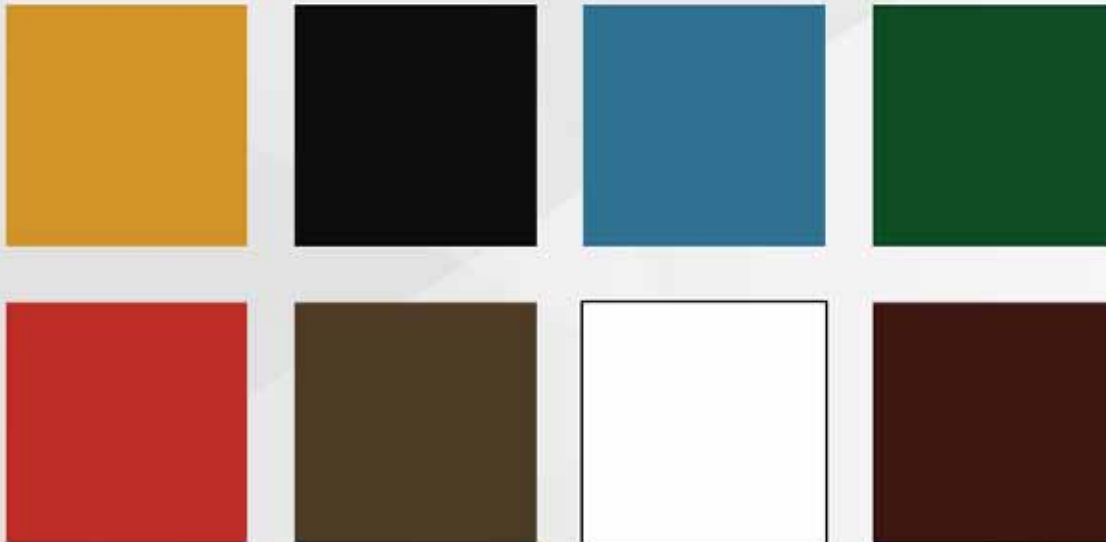
**TRUST MATTERS!**  
**10 YEAR**  
**WARRANTY**  
**FOR ALL APPLICATIONS.**





# CHOOSE YOUR **COLOR!**

AVAILABLE IN ALL PRIMARY COLORS.





# **LOOKING GOOD IS FEELING GOOD!**

**AESTHETICALLY PLEASING  
FLAWLESS & SMOOTH FINISH  
IMPROVED QUALITY OF HUMAN LIFE**



# CHOOSE THE BEST FOR ALL!

- DRIVE YOUR BUSINESS FORWARD
- SAVE MONEY
- CONTRIBUTE TO PUBLIC HEALTH
- IMPROVE SUSTAINABILITY



**EKO-YOL TURN AN ORDINARY  
ASPHALT PAVEMENT TO AN ENVIRONMENTALLY GREEN AREA**







EKO YOL

PAVING THE ROAD FOR THE NEXT GENERATION