



Asphacal[®]TC

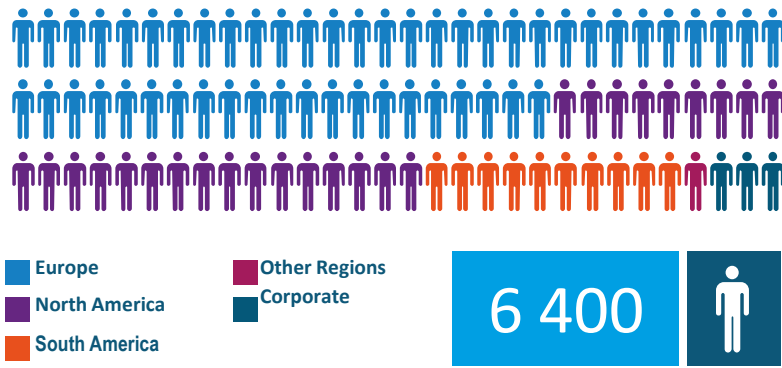
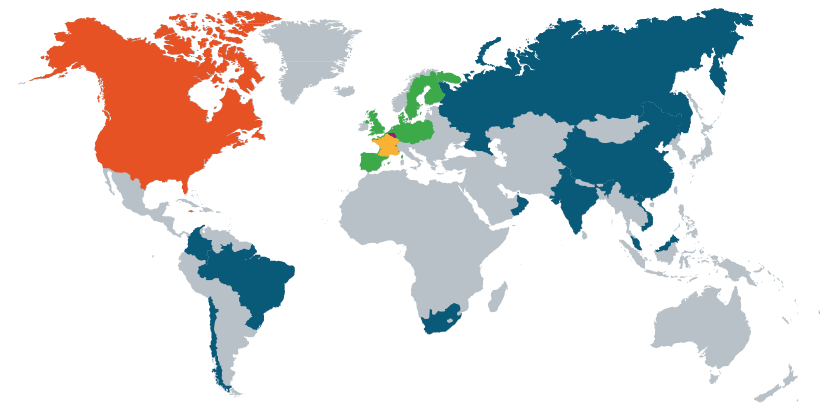
tack coat protection

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who we are...

over 125 years family company



-  1 R&D CENTER
-  4 CUSTOMER TECHNICAL SERVICE CENTERS
-  80 SUPPLIED COUNTRIES
-  100 PLANTS & TERMINALS

products - industries



MINERALS

- Limestone
- Milled limestone
- Dolomite
- Clay and others



BURNT PRODUCTS

- Quicklime (pebble, ground, milled)
- Hydrated lime
- Burnt dolomite



SPECIALTY PRODUCTS

- Milk of lime
- Fluidised lime
- Low dust emission lime
- High porosity hydrated lime
- Formulated products



definition

Tack coat

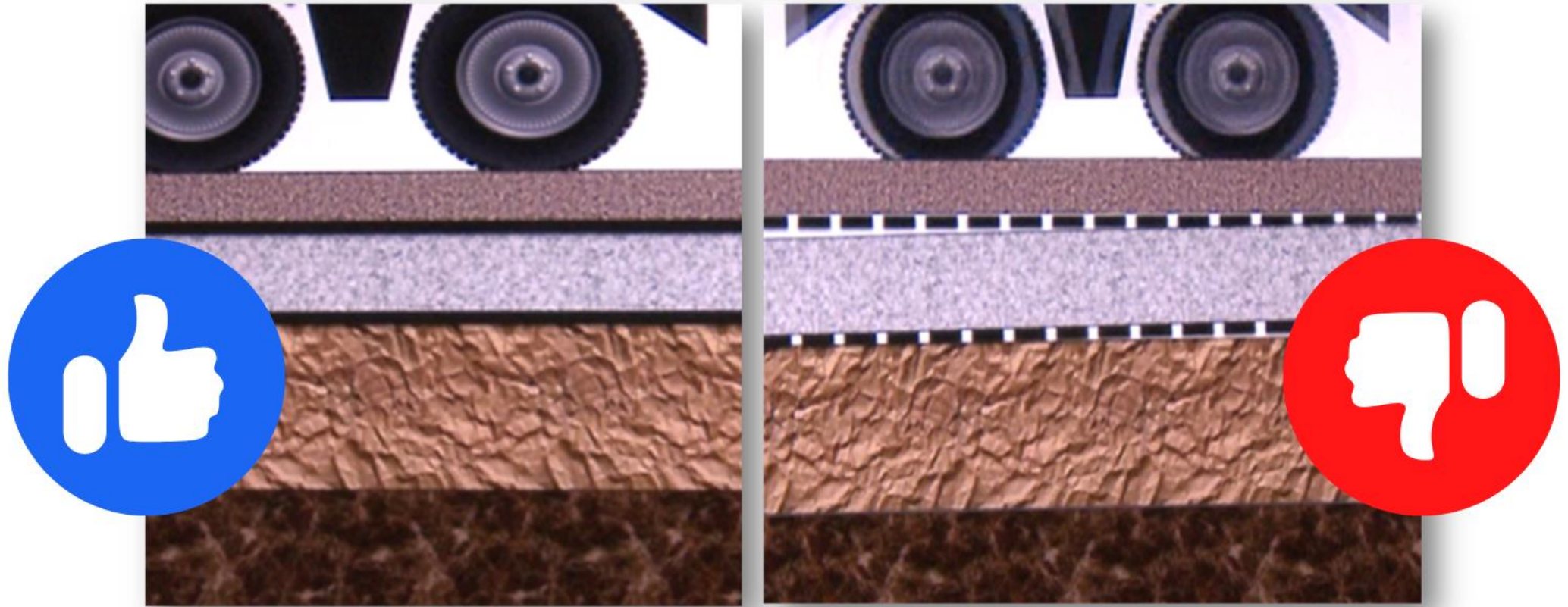
...what the tack is that?

Layer formed after breakdown bitumen emulsion.

(water evaporation and bitumen precipitation)

Applied on asphalt or aggregate layer.

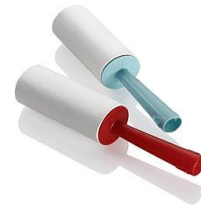
why **we need** good bond



100% life
expectations

vs

reality



do you also have this **problem**?



ON THE CONSTRUCTION SITE - WHAT A BEAUTIFUL MESS





so we have the **solution!**



the best tack coat **protection**

- formulation based on an aqueous suspension Ca(OH)_2



- very small particles ($d_{50} \leq 3\mu\text{m}$) to better pores penetration
- special additives weaken sedimentation and aggregation process

- high concentration of hydrated lime - 45%

delivery methods



IBC containers $\sim 1 \text{ m}^3$

or



cisterns $\sim 24 \text{ tons}$

working solution

Before use concentrate of Asphacal[®] TC is diluted n-times by tap water and spraying on tack coat in the amount

250 ml/m²



how to apply Asphacal[®]TC?



is it **ready** or not?



visual evaluation

this is how **it works**



protection **durability**

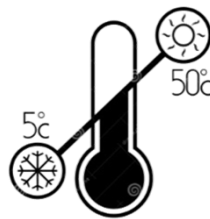
Close to

4

weeks

Durability of protection

Durability of the protected tack coat, despite the unfavorable and variable atmosphere conditions and construction traffic.



experiences in Poland

- more than 30 trials
- plenty commercial applications
 - highways
 - national roads
 - county roads
 - municipal roads



SKANSKA

budimex



bond improvement

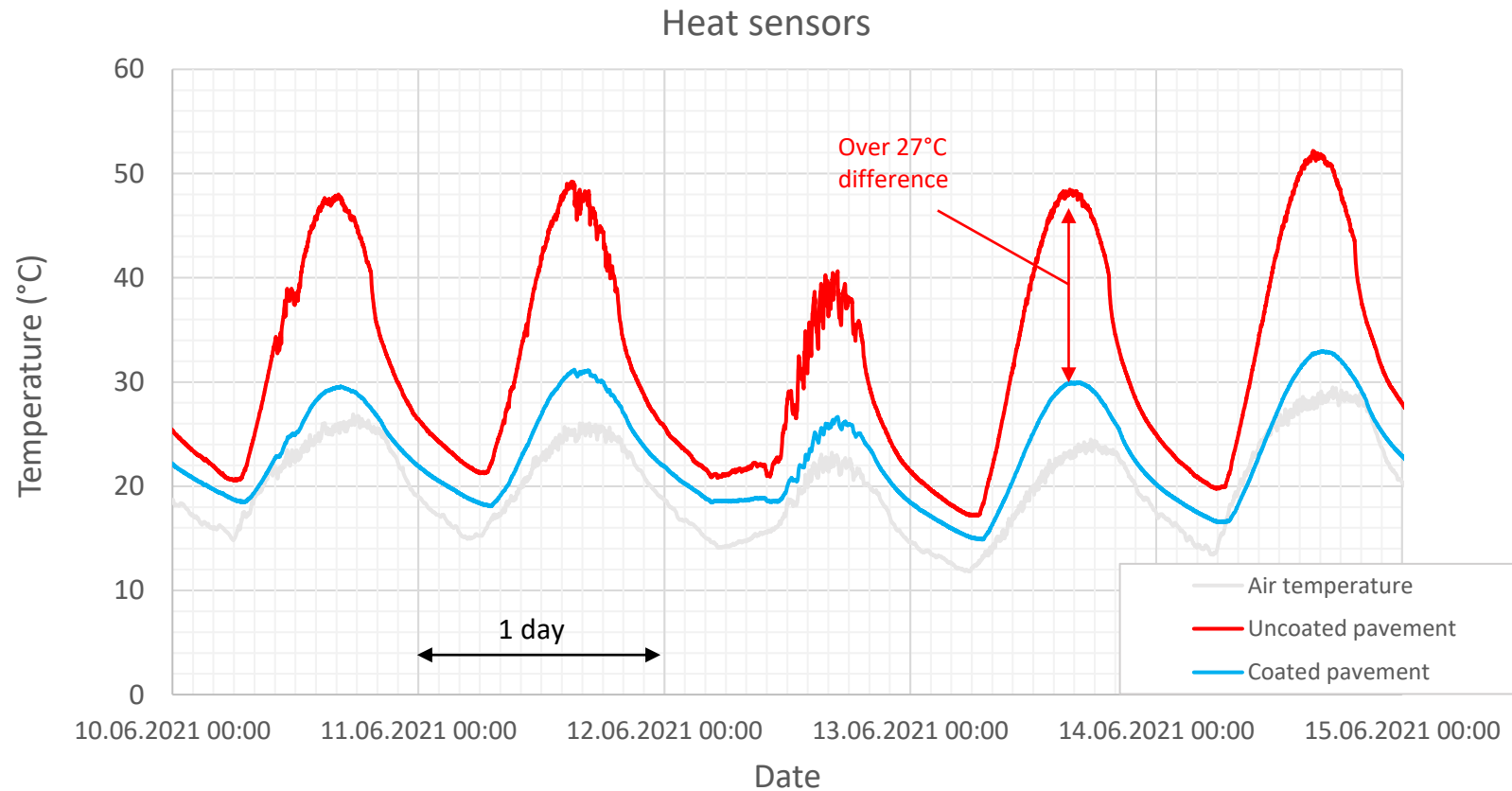
sample	type of sprinkling	sample diameter [mm]	shear force, [kN]	shear path [mm]	shear stress [MPa]	shear stiffness [kN/mm]
1 K	0,26kg/m ² K1-50 (1)	94	8,7	2,3	1,25	3,8
2 K			12,0	2,7	1,73	4,4
3 K			11,1	2,3	1,60	4,8
4 K			10,9	2,5	1,57	4,4
1 S	(2)	94	16,5	3,5	2,38	4,7
2 S	(2)		16,7	3,1	2,41	5,4
3 S	(3)		18,2	3,7	2,62	4,9
4 S	(4)		17,3	3,4	2,49	5,1

Proportion of the tack coat protection:

- (2) – bitumen emulsion (1) plus 250 ml/m² Asphacal TC diluted 1:9 (Asphacal TC : water)
- (3) – bitumen emulsion (1) plus 250 ml/m² Asphacal TC diluted 2:8 (Asphacal TC : water)
- (4) – bitumen emulsion (1) plus 250 ml/m² Asphacal TC diluted 3:7 (Asphacal TC : water)

The results of the reaserch are Skanska S.A. property and presented with their permission.

pavement temperature



- › Daytime surface temperature reduction from 18°C to 36°C (air temperature = 30°C)
- › Nighttime surface temperature reduction from 2°C to 7°C
- › Melting of tack coat is limited

Asphacal[®] TC **benefits**



Low cost of the
protection



Improvement H&S



Clean construction area
and adjacent areas



Bond
improvement

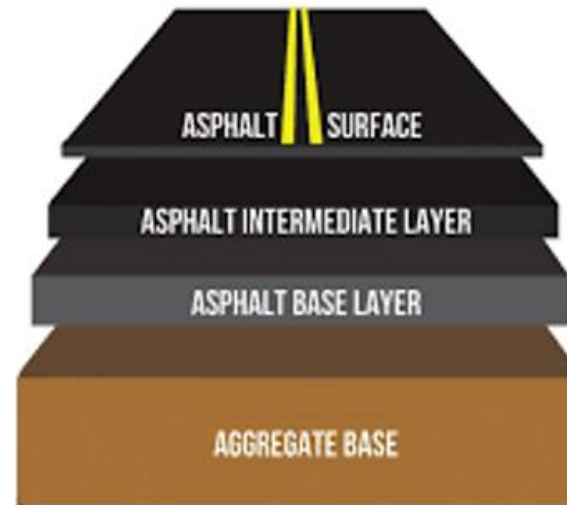
Asphacal[®] TC **benefits**



Lasting protection



Fast & easy application



Suitable between all layers



Environmentally friendly

Questions ???
Visit us !!!



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