



PPK7/PK7 machine hall,
general view
Stora Enso Oyj, Oulu, Finland

Coating of concrete walls and ceilings

The walls and ceilings of the production halls must be dust-proof and easy to clean. These ends can be achieved either with a single coat system of Temacoat RM 40 or a water-borne single/double coat Fontecoat FL 100 system. In areas which are subject to high humidity levels or chemical attack, the Temacoat RM 40 is used as a double/triple coat system.

Dust-proofing of walls and ceilings in production areas
1 x Temacoat RM 40
or
1 - 2 x Fontecoat FL 100

Humidity shield of production areas and areas subjected to chemical stress
3 x Temacoat RM 40 250 µm

Floors

The same conditions which corrode steel also cause damage to concrete surfaces. A proper coating increases the durability of a concrete floor and makes it easier to clean. Well chosen colours please the eye and improve the atmosphere of the workplace. For the floors in areas of light mechanical stress e.g. in offices, corridors and technical rooms, the two coat Temafloor 150 system is advised.

Floors that are subjected to medium mechanical or chemical stresses, require a system comprising of Temafloor 200 as primer and Temafloor P 300 as topcoat. An anti-slip finish can be added to improve safety where necessary with a coat of Temafloor 150 epoxy paint mixed with anti-slip material.

The areas of process floors which have to endure heavy mechanical or chemical attacks are as a rule coated with film thicknesses varying from 2 to 3 mm. The most common system includes Temafloor 200 as primer and Temafloor 3000 as topcoat. A single coat of Temafloor 150 is



applied for finishing touch as well as for subsequent maintenance painting of the floor.

<i>Light mechanical stress / easy-to-clean</i> 2 x Temafloor 150	200 µm
<i>Medium mechanical and chemical stresses</i> Temafloor 200 Primer Temafloor P 300	1 x 500 µm
<i>Anti-slip finish</i> Temafloor 150	1 x 50 µm
<i>Heavy mechanical and chemical stresses</i> Temafloor 200 Primer Temafloor 3000	2 - 3 mm

Pulp and paper companies using Tikkurila Coatings products and systems

AssiDomän, Frövi, *Sweden*

Billerud AB Gruvöns Bruk, *Sweden*

Caledonian Paper Mill, *U.K.*

East Lancashire Paper Mill, *U.K.*

Enso Fine Papers, *Finland*

Holmen Paper, Hallstavik and Braviken, *Sweden*

Iggesunds Bruk, *Sweden*

Metsä-Serla, *Finland*

Rafatac, *Finland, U.K.*

Shotton Paper Mill, *U.K.*

Stora Enso Skoghall, *Sweden*

Stora Enso Kvarnsveden, *Sweden*

UPM-Kymmene, *Finland*

Wiggins Teape Paper Mill, *U.K.*

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Protective
Coatings for
Pulp and Paper
Industries

TIKKURILA

Protective Coatings for Pulp and Paper Industries

The industrial production of pulp and paper is a demanding and highly technical business, which calls for sizable investments in machinery, equipment and production premises. Continuous maintenance is therefore of utmost importance to keep the processes running.

Tikkurila Coatings has developed several customised products and paint systems for coating of steel and concrete surfaces within the pulp and paper industries, for new construction as well as for maintenance.



Stora Enso Oyj,
Oulu, Finland

Newspaper line, Metso Paper Oy, Finland



New construction of paper machines

The manufacturers and commissioners of paper production machinery have jointly developed specific coating standards in co-operation with major paint suppliers. The coating systems complying with these standards have been subjected to lengthy field tests and have proven to be durable and dependable. The coating systems and products of Tikkurila Coatings meet all the requirements set by the standard of the Finnish paper machine manufacturer Metso Paper Oy as well as those of the Swedish SSG standard.

Paint systems specified by Metso Paper Oy

Dry end TP45 Sa 2 1/2	
Temacoat PM Primer	1 x 80 µm
Temadur 90	1 x 60 µm
	140 µm

Wet end TP46 Sa 2 1/2	
Temacoat PM Primer	1 x 80 µm
Temamastic PM 100	1 x 100 µm
Temadur 90	1 x 60 µm
	240 µm

Water-borne systems for new construction

Modern water-borne paint systems have been introduced for primary coating of new machines, equipment and steel structures. Specification TF26 is a widely used system in the dry areas of the paper production line, especially in the areas of paper coating and finishing.

TF26 Sa 2 1/2	
Fontecoat EP Primer	1 x 100 µm
Fontedur 90	1 x 40 µm
	140 µm

Maintenance and repair painting of paper machines

Any maintenance work must be carefully planned to coincide with the relatively short down time of



the machine line and must be completed according to a tight schedule.

As the maintenance and repair painting is usually carried out on site, due attention must be paid to selecting a correct paint system, based on considerations of the feasible pre-treatment methods and the prevailing conditions for application.

In most instances blast cleaning of the surfaces is out of question as the cleaning material and the dust can damage the machinery, which means that cleaning with wire brush to St2 (EN ISO 8501-1) level is the only remaining alternative. Tikkurila Coatings has developed Temabond WG 200 epoxy primer especially for these uses. Temabond WG 200 adheres well to a wire brushed surface. Barrier pigmented with aluminium, it forms a very tight and resistant layer. The solvent content of the paint is low, which means that emissions are minimal during application. The Temadur 50/90 topcoat gives the treated surface a non-chalking, high gloss finish.

Dry end TP36	
For repair and maintenance treatment of machinery and structures painted with TP45 system, or surfaces subjected to stresses specified accordingly	
Cleaning with wire brush St2 (ISO 8501-1)	
Temabond WG 200	1 x 100 µm
Temadur 90	1 x 40 µm
	140 µm

System TP36 is used for the coating of machines, equipment and steel structures in the areas of stock handling, the wet end and the coating kitchen.

Wet end TP36	
For repair and maintenance treatment of machinery and structures painted with TP46 system, or surfaces subjected to stresses specified accordingly	
Cleaning with wire brush St2 (ISO 8501-1)	
Temabond WG 200	2 x 100 µm
Temadur 90	1 x 40 µm
	240 µm



Other steel structures within the factory area

The steel structures of e.g. conveyors and pipelines, maintenance bridges and passages outdoors are subjected to heavy stresses from the industrial environment. We recommend the TP 22 coating system for new construction of these surfaces.

TP22	
Steel structures of conveyors and pipelines outdoors. Steel structures of maintenance bridges and passageways within factory area.	
Blast cleaning Sa 2 1/2 (ISO 8501-1)	
Temazinc 99	1 x 40 µm
Temacoat GPL-S MIO	2 x 75 µm
Temadur 50	1 x 50 µm
	240 µm

The use of blast cleaning for maintenance painting is usually only possible where items can be blast cleaned outdoors. If blast cleaning to Sa2 1/2 (to EN ISO 8501-1) can be carried out, then the use of the original system TP22 is recommended. Where blast cleaning is not possible, system TP39 is suggested, as this system is compatible with hand preparation to St2 (EN ISO 8501-1).

TP39	
For repair and maintenance treatment of machinery, equipment and steel structures painted with TP22 system, or surfaces subjected to stresses specified accordingly	
Cleaning with wire brush St2 (ISO 8501-1)	
Temabond WG 200	2 x 90 µm
Temadur 50	1 x 60 µm
	240 µm

Pipeline scaffolds,
UPM-Kymmene Oyj,
Kaukas, Finland

Storage tanks

Various storage tanks for chemicals are integral parts of the processes of pulp and paper industries. The interiors of the tanks need to be coated with systems which can withstand chemical and thermal stresses in the best possible way. The system most widely used is the epoxy based TE5. The outside surfaces of storage tanks are coated with the same TP22 system that is recommended for all other steel structures in open air.

TE5	
Interiors of storage tanks for chemicals. Resistance to chemical and thermal stresses are given in a separate data sheet.	
Blast cleaning Sa 2 1/2 (ISO 8501-1)	
Temaline BL	2 x 250 µm
	500 µm

