

Sustainability in commercial laundering processes

Module 1
Usage of water

Chapter 1

Meaning of sustainability

- Sustainability
 - Definition
 - Background
 - Impact for laundries
 - Measures for sustainable processes in laundries
 - Active and passive environmental protection

After finishing this chapter, you will

- know the common accepted definition of sustainability
- know the political evolution process regarding the definition of sustainability
- know about the impact for laundries
- know measures to implement a sustainable process in practice
- be able to distinguish between active and passive measures for environmental protection

Sustainability means

- to meet the needs of the present without the risk that future generations are not able to meet their own needs
- i.e. the today's generation is required to use resources in a way that future generations still can live in a “worth living” environment

- in 1992 the UN Conference on Environment and Development (UNCED) took place in Rio de Janeiro
- according to this conference framework directives of the European Commission define certain environmental targets which have to be carried out by all EU members
- one of the directives is the water framework directive 2000/60/EC
- 2000/60/EC requests the creation of incentives for efficient use of water resources till 2010 by water fee politics
 - improvements of sustainability of production processes should be reached till 2015
 - i.e. in all member countries the inshore waters should be in a “good status”

Consequences of 2000/60/EC for laundries



- This water framework directive 2000/60/EC has to be transferred into national regulations and
- affects all water using enterprises, this means laundries primarily
- in consequence fees for fresh and waste water will increase in a way that laundries are forced to save water
- in addition, during introduction of water saving measures it has to be taken into account that there are
 - no negative effects on wash performance and
 - no increasing costs for laundering

Realisation of “good waste water quality” by

- reduction of fresh and waste water consumption
- removal of harmful components in waste water by means of treatment
- reduction of waste water temperature
- reduction of chemistry and use of environmental harmless detergents and washing aids

Other measures for improvement of sustainability, e.g.

- reduction of energy consumption by lower water consumption and low temperature washing processes
- use of gentle wash processes with consequence of increased textile life time

⇒ active and passive measures for sustainability

active measures

Improve washing process by

- ⇒ optimized washing process, e.g. reduction of water consumption
- ⇒ suitable use of detergents
- ⇒ reduced washing temperatures
- ⇒ optimized machine technology
- ⇒ without negative effects on wash performance as well as on functionality and life time of textiles

passive measures

Improve washing process by

- ⇒ waste water treatment for waste water load
- ⇒ usage of heat exchanger technology for reduction of waste water temperature