CASE STUDY
FILTRALITE CLEAN
WASTEWATER TREATMENT

FILTRALITE®
FILTERING THE WATER FOR TOMORROW

Filtralite® improves wastewater treatment process in Dalian, China

In 2000, a new wastewater treatment plant was built in the Chinese city of Dalian to treat wastewater from 432 000 persons (120 000 m3/day).

To manage the specifications set for the plant, a biological treatment with fixed bed was chosen. The water first undergoes pre-treatment by screening and grit/grease removal. Primary sedimentation is done in 4 tanks with lamellar sedimentation.

The first step in the biological treatment consists of BOD, COD and SS removal in 12 Biofor filters. In these filters round expanded clay aggregates, Filtralite® Clean, is used as carrier for the biofilm. Process air blowers aerate the filters.

The second biofilter stage is nitrification in 12 Biofor filters with the same surface area as in the first step. The filter media used in these filters is crushed Filtralite® Clean. Process air is supplied by blowers.

Parameter	Influent	Effluent	
(all values mg/l)	design	Required	Achieved
BOD5	216	< 10	3
COD	480	< 40	30
SS	350	< 10	8
NH4-N		< 5	1.1

About 40% of the treated water is disinfected by chlorine and used as recycled water for industrial use.

Overview of the complete Dalian wastewater treatment plant in China

More information, cases and documentation at
www.filtralite.com