

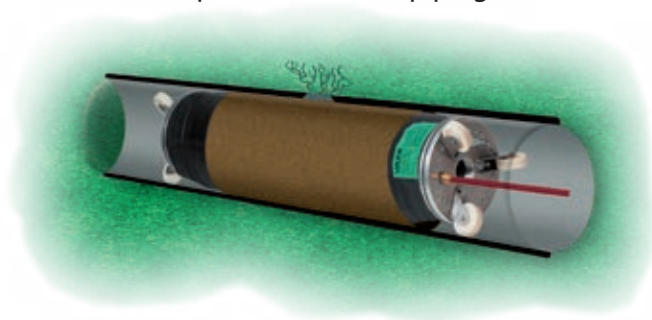
# REHABILITATION PACKERS

Rehabilitation packers **P, FP, DP, HP** and **HPP** are used for repairing locally-damaged sewerages or other pipe-lines or for their successive maintenance. The packers can be applied to fissures, leaky joints, misalignments, root downgrowth and corroded sections. Sewerages made of all kinds of materials in the diameter ranging from 50 mm to 1200 mm can be maintained or repaired in this way.

These packers can be divided into several groups: short packers, flexible packers, lateral packers and long packers. They are made of a special rubber guaranteeing the necessary flexibility, strength and resistance. All their metal parts are made of corrosion-resistant materials.

The maintenance work consist of placing the packer and its insertion piece (a fabric of glass fibres impregnated with a special artificial resin) into the piping on the

damaged point. This procedure can be monitored by using a closed-loop television while the packer is not under pressure. Then the packer is inflated to the working pressure and the glass-fibre-fabric insertion piece is pressed against the wall of the pipe. As the overflowing resin penetrates the fissures and cavities, the damaged spot and the glass-fibre-fabric insertion piece become firmly connected. After the resin gets hardened, its static load capacity is supported with a short tube with gradual reductions. Then the packer is deflated and pulled out of the piping.



## LONG PACKERS



Long packers consist of a rubberized-fabric tube ended with aluminium faces at both its ends. The faces are provided with quick-couplers to facilitate inflation of the bag and with handling eyes. These packers are not provided with wheels and do not allow the medium to flow during the repair. The effective surface ranges from 1100 to 3600 mm.

### Long Packers DP

Type	Part - No	Pipe diameter mm	Rubber body diameter mm	Rubber body length mm	Total length mm	Application length in max. diameter mm	Weight kg	Operating pressure bar
DP 20/30-1	7429	200-300	150	1000	1100	580	3,7	1,5
DP 20/30-1,5	7403	200-300	150	1500	1600	1080	4,8	1,5
DP 20/30-2	7404	200-300	150	2000	2100	1580	5,9	1,5
DP 20/30-2,5	7402	200-300	150	2500	2600	2080	7,0	1,5
DP 20/30-3	7405	200-300	150	3000	3100	2580	8,1	1,5
DP 20/30-3,5	7417	200-300	150	3500	3600	3080	9,1	1,5
DP 20/30-4	7406	200-300	150	4000	4100	3580	10,2	1,5
DP 30/40-1	7440	300-400	240	1000	1100	580	6,5	1,5
DP 30/40-1,5	7418	300-400	240	1500	1600	1080	8,5	1,5
DP 30/40-2	7407	300-400	240	2000	2100	1580	10,6	1,5
DP 30/40-2,5	7419	300-400	240	2500	2600	2080	12,7	1,5
DP 30/40-3	7408	300-400	240	3000	3100	2580	14,7	1,5
DP 30/40-3,5	7401	300-400	240	3500	3600	3080	16,7	1,5
DP 30/40-4	7409	300-400	240	4000	4100	3580	18,8	1,5
DP 40/50-1,5	7420	400-500	340	1500	1600	1080	16,0	1,0
DP 40/50-2	7410	400-500	340	2000	2100	1580	21,0	1,0
DP 40/50-2,5	7421	400-500	340	2500	2600	2080	24,0	1,0
DP 40/50-3	7411	400-500	340	3000	3100	2580	26,5	1,0
DP 40/50-3,5	7422	400-500	340	3500	3600	3080	29,0	1,0
DP 40/50-4	7412	400-500	340	4000	4100	3580	32,0	1,0
DP 50/60-1,5	7423	500-600	430	1500	1600	1000	21,0	1,0
DP 50/60-2	7413	500-600	430	2000	2100	1500	28,3	1,0
DP 50/60-2,5	7424	500-600	430	2500	2600	2000	31,8	1,0
DP 50/60-3	7414	500-600	430	3000	3100	2500	35,4	1,0
DP 50/60-3,5	7425	500-600	430	3500	3600	3000	39,0	1,0
DP 50/60-4	7415	500-600	430	4000	4100	3500	42,5	1,0
DP 60/80-1,5	7434	600-800	510	1500	1600	920	45,0	0,6
DP 60/80-2	7436	600-800	510	2000	2100	1420	49,0	0,6
DP 60/80-2,5	7430	600-800	510	2500	2600	1920	52,5	0,6
DP 60/80-3	7437	600-800	510	3000	3100	2420	56,0	0,6
DP 60/80-3,5	7438	600-800	510	3500	3600	2920	59,5	0,6
DP 60/80-4	7439	600-800	510	4000	4100	3420	63,0	0,6

# TABLE OF RESISTANCE FOR PIPE STOPPERS AND REHABILITATION PACKERS

**A – Pipe stoppers and Rehabilitation packers**

**B – Pipe stoppers resistant to oil**

**C – Cone pipe stoppers ULK and PULK**

Chemicals	Concentration %	A	B	C
Acetone		+/-	--	++
Acetylene – Alcohol		++	++	++
Aniline		+/-	--	--
Petrol		--	++	++
Benzene		--	--	--
Boric Acid	10	++	++	++
Brake Fluid		++	--	++
Butanol		++	++	++
Butyric Acid		--	+/-	--
Calcium Hydroxide		++	+/-	++
Calcium Hypochlorite	15	++	--	++
Diesel Oil		--	++	++
Ethanol		++	++	++
Formaldehyde	40	++	++	++
Glycerine		++	++	++
Kerosene		--	++	+/-
Methanol	50	++	++	++
Mineral Oil		--	++	++
Methyl Chloride		--	--	--
Natural Gas		--	++	++
Nitric Acid Diluted	50	+/-	+/-	--
Ozone		--	--	++
Phenol		--	--	--
Phosphoric Acid	60	+/-	--	++
Propanol		++	+/-	++
Sodium Hydroxide	20	++	++	++
Sodium Hypochlorite	10	+/-	--	++
Sulphuric Acid	20	++	++	++
Sulphuric Acid	50	++	+/-	++
Sulphuric Acid	60	--	--	+/-
Toluene		--	--	--
Ammonium Hypochlorite		+/-	--	++
Vinegar Acid		++	+/-	+/-
Ferrous Hypochlorite		++	++	++
Sea Water		++	++	++

++ resistant  
+/- partially resistant  
-- non-resistant

