

## MATERIALS SELECTION GUIDELINES

### CONCRETE CRACK INJECTION

- Potable Water applications - **FLEXIBLE**
- Stopping flowing water leaks - **FLEXIBLE**
- Waterproofing dry cracks +0.25 mm - **FLEXIBLE**
- Waterproofing wet cracks +0.25 mm - **FLEXIBLE**
- Waterproofing fine cracks <0.25 mm - **FLEXIBLE**
- Waterproofing hairline cracks - **FLEXIBLE**
- Waterproofing dry honeycombed areas - **FLEXIBLE**
- Waterproofing wet honeycombed areas - **FLEXIBLE**
- For cold temperature injection down to 0°C use **FLEXIBLE** and additional accelerator to compensate for cold temperatures

### PULP AND PAPER

- Injecting concrete cracks - see above
- Sealing construction joints - see above
- Sealing expansion joints - **FLEXIBLE**
- Sealing cracks in concrete slabs - see above
- Sealing leaks from process tanks - **FLEXIBLE**
- Use **FLEXIBLE** polyurethane resin for increased resistance against chemical attack; call **MULTIURETHANES** for technical assistance regarding chemical resistance applications and techniques for stopping leaks from process liquid tanks

### UNDERGROUND PARKING GARAGES

- Waterproofing expansion joints - **FLEXIBLE**
- Sealing conduits and pipe openings - **FLEXIBLE**
- Waterproofing ledge beam joints - **FLEXIBLE**
- Repairing waterproof membranes - **FLEXIBLE**
- Repairing construction joints - **FLEXIBLE**



*Cracks in concrete water treatment tanks are sealed from the outside while the tanks remain in operation using **MULTIURETHANES** injection products, equipment and accessories*



*Precast manholes are permanently sealed with **MULTI-GEL** resin, using special manhole sealing equipment and injection techniques supplied by **MULTIURETHANES***

### MUNICIPAL & UTILITY

- Potable Water applications - **FLEXIBLE**
- Sealing precast manhole joints - **MULTI-GEL**
- Sealing brick manholes - **MULTI-GEL**
- Sealing man-accessible pipe joints - **FLEXIBLE**
- Sealing small diameter pipe joints - **MULTI-GEL**
- Waterproofing sewage retention tank - **FLEXIBLE**
- Waterproofing expansion joints - **FLEXIBLE**
- Sealing conduits and pipe openings - **FLEXIBLE**
- For soil stabilization: use stable, cement-based suspension grouts, microfine cement-based grouts, or acrylate resin.

# MATERIALS SELECTION GUIDELINES

## MARINE & UNDERWATER STRUCTURES

- Sealing underwater cracks & joints - **FLEXIBLE**
- Underwater soil stabilization and cavity filling: use stable, cement-based suspension grouts and microfine cement-based grouts where applicable; use **ULTRAFINE** or **UNIVERSAL** foam-producing resins when flowing water conditions are encountered.
- Restoration of historical structures: use cement-based grouts or light weight cellular grouts in combination with polyurethane resins as required.
- Call **MULTIURETHANES** for technical assistance regarding underwater grouting applications, equipment and techniques for use by divers.



*Miners preparing for polyurethane injection to stop inflows of quicksand into a 24 foot diameter shaft collar excavation*

## MINING AND TUNNELLING

- Stopping water inflows: use stable, cement-based suspension grouts and microfine cement-based grouts where applicable; use **ULTRAFINE** resin in soil or **UNIVERSAL** resin in rock when large inflows of water are encountered.

## GEOTECHNICAL

- Soil stabilization and cavity filling: use stable, cement-based suspension grouts and microfine cement grouts where applicable; use **ULTRAFINE** or **UNIVERSAL** polyurethane resins when flowing water conditions are encountered.
- Slab jacking and foundation compaction grouting: use stable, cement-based grout formulations.
- Stopping water leaks around ground anchors and wall tie-backs: use stable, cement-based suspension grouts with **UNIVERSAL** resin to provide a fast-setting grout to cut off water flows.
- Stopping water leaks and soil loss through caisson walls: use stable, cement-based suspension grouts in conjunction with **UNIVERSAL** polyurethane resin for fast-setting repairs.
- Preventing soil liquefaction when undertaking deep excavations below the water table in sandy soil: use microfine cement; use **ULTRAFINE** or **UNIVERSAL** polyurethane resins for flowing water conditions.

## CONCRETE DAMS AND POWERHOUSES

- Concrete crack injection - see above
- Stopping flowing water leaks - **FLEXIBLE**
- Sealing underwater cracks & joints - **FLEXIBLE**
- Foundation grouting and cavity filling: use stable, cement-based suspension grouts in primary grout holes and microfine cement-based grouts in secondary grout holes to reduce residual permeability.

## EARTH DAMS AND TAILINGS DAMS

- Foundation grouting and cavity filling: use stable, cement-based suspension grouts and microfine cement grouts.
- Stopping water leaks: use stable, cement-based suspension grout in conjunction with **UNIVERSAL** polyurethane resin to provide a fast-setting grout to cut off water flows through earth dams.

WATERPROOFING • CRACK INJECTION • CONCRETE RESTORATION • SEWER REHABILITATION • WATER CUT-OFF