

## Corrigendum 1

### *fib* Bulletin 33: Durability of post-tensioning tendons

Please note the following errors in the text of Bulletin 33, “Durability of post-tensioning tendons”, which was dispatched to *fib* members in March 2006:

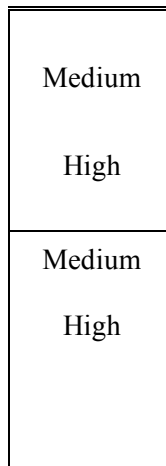
*Page 14, Table 1.3:*

In the first column of section **4 – Corrosion induced by chlorides from sea water**, replace:



*Page 14, Table 1.3:*

In the first column of section **5 – Freeze/thaw attack with or without de-icing agents**, add a horizontal line between the first occurrence of "High" and the second occurrence of "Medium", to read as follows:



For the reader’s convenience, a corrected version of page 14 is given on the verso of this page.

Aggressivity levels	Class designation	Description of the environment	Informative examples where exposure classes may occur
Medium ↓ High	<b>3 – Corrosion induced by chlorides other than from sea water</b>		
	XD1	Moderate humidity	Concrete surfaces exposed to airborne chlorides
	XD2	Wet, rarely dry	Swimming pools Concrete exposed to industrial waters containing chlorides
	XD3	Cyclic wet and dry	Parts of bridges exposed to spray containing chlorides Pavements Car park slabs
Medium ↓ High	<b>4 – Corrosion induced by chlorides from sea water</b>		
	XS1	Exposed to airborne salt but not in direct contact with sea water	Structures near to or on the coast
	XS2	Permanently submerged	Parts of marine structures
	XS3	Tidal, splash and spray zones	Parts of marine structures
Medium High	<b>5 – Freeze/thaw attack with or without de-icing agents</b>		
	XF1	Moderate water saturation without de-icing agent	Vertical concrete surfaces exposed to rain and freezing
	XF2	Moderate water saturation with de-icing agent	Vertical concrete surfaces of road structures exposed to freezing and airborne de-icing agents
Medium High	XF3	High water saturation without de-icing agent	Horizontal concrete surfaces exposed to rain and freezing
	XF4	High water saturation with de-icing agent or sea water	Road and bridge decks exposed to de-icing agents Concrete surfaces exposed to direct spray containing de-icing agents and freezing Splash zones of marine structures exposed to freezing
Medium ↓ High	<b>6 – Chemical attack</b>		
	XA1	Slightly aggressive chemical environment according to table 2 (of EN 206-1)	
	XA2	Moderately aggressive chemical environment according to table 2 (of EN 206-1)	
	XA3	Highly aggressive chemical environment according to table 2 (of EN 206-1)	

Table 1.3: Aggressivity level and exposure examples as entry points in Table 1.2 (after EN 206-1)

#### 1.4.4 Considerations for selecting the protection layers provided by the structure

For applying the principle of multi-layer protection (see section 1.3.1), reference should be made to the following sections:

- section 1.3.3 Concrete quality and cover;
- section 1.3.4 Waterproofing systems and other surface protection systems;
- section 1.3.5 Drainage system;
- section 1.3.6 Expansion joints;
- section 1.3.7 Cracking;