

## iwis® CR Chains

Corrosion-resistant roller chains and conveyor chains according to ISO 606

### PROBLEM/INITIAL SITUATION

Chains in corrosive media have to possess high fatigue and wear resistance. Chains made of standard steels corrode quickly whilst stainless steels made of V2-A steel do not withstand these stresses. Nickel-plated or galvanised chains only offer limited corrosion-proofing because the coating is destroyed by abrasion.

### OUR SOLUTION

CR: iwis high performance chains made of hardened high-alloyed steels with good corrosion resistance and significantly higher strength than stainless steel chains.

### HIGHLIGHTS

- High wear resistance if relubrication is done at regular intervals
- Good and long-lasting corrosion resistance – in comparison with surface-coated chains
- Significantly higher fatigue resistance and breaking strength figures than stainless steel chains  
→ smaller dimensions possible

### TECHNICAL FEATURES

|                  | iwis CR  | iwis Standard | Stainless Chain |
|------------------|----------|---------------|-----------------|
| All components   | hardened | hardened      | not hardened    |
| Pre-stretched    | yes      | yes           | not regularly   |
| Fatigue strength | 80%      | 100%          | 50%             |
| Wear resistance  | 95%      | 100%          | 30%             |

### CORROSION RESISTANCE

All CR chains are provided with a reliable high quality initial lubrication.

For permanent corrosion resistance, a sufficient regular relubrication is necessary.

### AREAS OF APPLICATION

- Food product processing
  - Drinks manufacture
  - Packaging machines
  - Cheese and dairy technology
  - Areas where dominate moist or aggressive conditions
  - Cleaning systems
  - (Chemical) equipment construction
- ...and everywhere where chains have to remain articulated despite difficult conditions as a consequence of corrosion and may not rust on hygienic or visual grounds.

### RUST- AND ACID-RESISTANCE

Dependent on

- duration
- concentration
- temperature
- variations of the mixture of the individual media. We recommend field trials to check fitness for the operational purpose.

### CHAIN SPROCKETS

Depending on the circumstances, chain sprockets can be used which are made of

- stainless material
- suitable plastics
- or steel, possibly with an electro-plated coating.

| ISO no. | iwis reference | Sales designation<br>Pitch x inner width | $a_1$ (mm) | Outside width<br>$a$ (mm) | $d_1$ (mm) | Diameter<br>$d_2$ (mm) | Plate height (mm) | Tensile strength<br>$F_t$ (N) | Bearing area $f$ (cm <sup>2</sup> ) | Weight $q$ (kg/m) |
|---------|----------------|--|------------|---------------------------|------------|------------------------|-------------------|-------------------------------|-------------------------------------|-------------------|
| 08 B-1  | L 85 CR        | 1/2 x 5/16"                              | 16.9       | 18.5                      | 8.51       | 4.45                   | 12.2              | 15,000                        | 0.50                                | 0.70              |
| 10 B-1  | M 106 CR       | 5/8 x 3/8"                               | 19.5       | 20.9                      | 10.16      | 5.08                   | 14.4              | 18,000                        | 0.67                                | 0.95              |
| 12 B-1  | M 127 CR       | 3/4 x 7/16"                              | 22.7       | 23.6                      | 12.07      | 5.72                   | 16.4              | 22,000                        | 0.89                                | 1.25              |

