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| <p style="text-align: center;">STEEL (UNPACKAGED)</p> |
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1. Scope

This section deals with materials and objects in steel ¹⁾ which as finished products are intended to be in direct contact with foodstuffs, food products and beverage for human and animals consumption.

The products mentioned in sheets "Steel for packaging" and "Stainless Steel" are not concerned.

The main applications examples are the following elements:

- Household articles: cake moulds, bread boards, frying pans, cutlery, cooking hobs.
- Equipment for agri-food industry: Silos and containers for dry foodstuffs (rice etc.)

2. Restriction of use

Steel objects intended to be in direct contact with food products must not be put in contact with acid foodstuffs or drink.

3. Definitions of performance criteria for food contact

3.1 Texts to be used

3.1.1 Regulatory texts

- *Order of 15th November 1945* setting the list of materials likely to be used without adverse effect on public health in the manufacturing of measuring instruments.

3.1.2 Other texts

- *NF A 36-714* "Unpackaged Steel – Flat steel products intended for contact with foodstuffs, food products or beverage for human and animals consumption – Uncoated (and stainless) steels";
- *NF A 35-596* "Iron and steel products - Carbon steels for cutlery".

3.2 Criteria to be used

The steel supplier certifies conformity with the requirements for chemical composition specified in the table below.

Table –Chemical composition ¹⁾

| Specified elements | | Maximum contents in % mass | |
|--|------------|-------------------------------|---------------|
| Symbol | Name | Flat products | Long products |
| Al | Aluminium | 1.00 | 2.00 |
| As | Arsenic | 0.030 | 0.030 |
| B | Boron | 0.050 | 0.050 |
| C | Carbon | 1.30 | 1.30 |
| Cd | Cadmium | 0.01 | 0.01 |
| Cr | Chromium | 1.60 | 2.50 |
| Co | Cobalt | 0.05 | 0.1 |
| Cu | Copper | 1.00 | 1.00 |
| Mn | Manganese | 2.50 | 2.50 |
| Mo | Molybdenum | 1.00 | 1.00 |
| N | Azote | 0.100 | 0.20 |
| Nb | Niobium | 0.20 | 0.20 |
| Ni | Nickel | 2.00 | 4.10 |
| P | Phosphorus | 0.20 | 0.20 |
| Pb | Lead | 0.05 | 0.05 |
| S | Sulphur | 0.050 | 0.40 |
| Si | Silicon | 2.50 | 2.50 |
| Sn | Tin | 0.080 | 0.080 |
| Ti | Titanium | 0.30 | 0.30 |
| V | Vanadium | 0.30 | 0.30 |
| Zr | Zirconium | 0.20 | 0.20 |
| Other elements taken individually excepted iron | | 0.050 | 0.050 |
| ¹⁾ The chemical elements included in the section "Others elements taken individually" are elements appearing in very small quantities but which are not deliberately added during the steel manufacturing process . | | | |

4. Acceptability limits

4.1. Content of undesirable elements

Looking for the presence of lead, cadmium, arsenic and cobalt.

Lead $\leq 0.05\%$; Cadmium $\leq 0.1\%$; Arsenic $\leq 0.30\%$; Cobalt $\leq 0.050\%$.