Steel Conveyor Belt – Common Materials & Chemical Analysis

There are so many materials for metal conveyor belts. Different material has these own characteristics:

SUS304 features best corrosion and rust resistance performance with relatively more expensive costs.
Cr25Ni35Si2 materials feature high temperature and carbon resistance.
More chemical analysis and material options, just browse the following chart:

Chemical Analysis of Raw Materials and Common Material Reference											
Mark	**Chemical Component**									**Oxidation Resistance Temperature (°C)**	**Material Properties**
	C	**Si**	**Mn**	**P**	**S**	**Ni**	**Cr**	**Mo**	**Cu**		
45# Steel	0.06–0.22	0.12–0.30	0.25–0.60	–	–	–	–	–	–	400	
D667	0.12	1	11.0–15.0	0.045	0.03	0.5–1.5	12.5–14.0	0.6	1.5–2.5		Nickel steel grade, cold

											workability and corrosion resistance.
1Cr13	0.15	0.6	0.6	–	–	–	–	–	–	600	
1Cr18Ni9Ti	0.12	0.6	0.6	–	–	–	12.0–14.0	–	–	750	
SUS304 (0Cr18Ni9)	0.08	1	2	0.045	0.03	8.0–10.0	18.0–20.0	–	–	750	Has good corrosion resistance and is widely used.
New SUS304 (06Cr19Ni10)	0.08	1	2	0.045	0.03	8.0–11.0	18.0–20.0	–	–	750	Has good corrosion resistance and is widely used.
SUS304H	0.06–0.10	1	2	0.045	0.03	8.0–11.0	18.0–20.0	–	–		Good corrosion resistance and high strength

											after cold working.
SUS304HC	0.08	1	2	0.045	0.03	8.0–10.0	18.0–20.0	–	2.0–3.0	750	Good cold workability, good corrosion resistance.
SUS304M	0.06	1	2	0.045	0.03	9.0–10.0	18.0–20.0	–	–	800	Good corrosion resistance, good drawing performance.
SUS316	0.08	1	2	0.045	0.03	10.0–14.0	16.0–18.0	2.0–3.0	–	800	Corrosion resistance is superior to SUS304 in seawater and various organic acids.

SUS316L	0.03	1	2	0.045	0.03	12.0–15.0	16.0–18.0	2.0–3.0	–	800	Has lower carbon content than SUS316 and better resistance to intergranular corrosion. An important corrosion resistant material.
SUS310S	0.08	1.5	2	0.045	0.03	19.0–22.0	24.0–26.0	–	–	1,000	Heat resistance, good oxidation resistance.
SUS314	0.25	1.5–3.0	2	0.04	0.03	19.0–22.0	24.0–26.0	–	–	1,000	Good oxidation resistance,

											mostly used as heat resistant steel.
Cr20Ni80	0.05	rest	0.05	0.02	0.02	75.0–78.0	19.0–21.0	–	–	1,350	High temperature and carbon resistance.
Cr25Ni35Si2	0.05	≤ 1.5	0.5	0.02	0.02	33.0–36.0	23.0–26.0	rest	–	1,250	High temperature and carbon resistance.
Cr25Ni20Si2	0.05	≤ 1.5	0.5	0.02	0.02	19.0–21.0	23.0–26.0	rest	–	1,250	High temperature resistance.
Alloy steel	0.02	≤ 2.0	2	0.05	0.03	20.0–22.0	23.0–26.0	2.0–3.0	–	1,400	High temperature resistance and
Containing Nb											

											hydrogen embrittlement.
SUS201CU	0.12	1	7.5–10.0	0.045	0.03	3.5–5.5	13.5–16.0	0.5	2.0–3.0		Nickel steel grade, cold workability and corrosion resistance.
Note: In the above table, the listed components indicate the range, the rest is the maximum value.											