

STAINLESS STEEL, SPECIAL ALLOYS AND NON-METALLIC MATERIALS

Stainless steels and special alloys

The raw stainless steels and special alloys used in AdcaPure products are acquired according to the ASME BPE specifications and comply with the relevant standards.

Internally, these materials are subject to a strict quality control that involves, not only documentation and dimensions verification, but also, spectrographic chemical composition analysis in our facilities.

All materials are internally traceable, by means of the quality system procedures.

STAINLESS STEELS AND SPECIAL ALLOYS *		
MATERIAL	STANDARD	CHARACTERISTICS
AISI304 (1.4301)	ASTM A276	APPLIED ONLY IN NONWETTED PARTS
AISI316 L (1.4404)	ASTM A276	INTERCRYSTALLINE CORROSION RESISTANT ACC.TO ISO3651-2 METHOD A AND ASTM A262 PRACTICE E.
AISI316L (1.4435)	ASTM A276	IMPROVED CORROSION RESISTANCE COMPARED TO OTHER CrNi-STEELS DUE TO ITS INCREASED CONTENT OF MOLYBDENUM.
AISI316Ti (1.4571)	ASTM A276	INTERCRYSTALLINE CORROSION RESISTANT ACC.TO ISO3651-2 METHOD A AND ASTM A262 PRACTICE E.
HASTELLOY® C22 (2.4602)	ASTM B574	RESISTANCE TO BOTH OXIDIZING AND NON-OXIDIZING CHEMICALS, PROTECTION FROM CORROSION, PITTING, CREVICE ATTACK AND STRESS CORROSION CRACKING
CF3M (1.4409)	ASTM A351	FERRITE CONTENT OF LESS THAN 2% AND LOW SULPHUR BETWEEN 0,005% AND 0,017%.

* For other special high corrosion resistance steels, please consult factory.

Non-metallic materials

It is crucial that non-metallic parts are selected to maintain the purity and integrity of the process fluid. In order to achieve this, they should be compatible with stated processing conditions, cleaning solutions and sterilization conditions, defined by the customer.

The following table has an overview of the non-metallic materials applied in the AdcaPure range and the respective approvals:

NON-METALLIC MATERIALS WETTED PARTS		
MATERIAL DESIGNATION	STANDARD APPROVALS	ON REQUEST
GYLON® (modified PTFE)	EC1935/2004 EC2023/2006 ADI Free BAM FDA 21CFR177.1550 NSF ROHS USP CL.VI Ch. 31, 87, 88, 281, 661 121 °C	3A Sanitary
EPDM	FDA 21 CFR 177.2600 USP CL.VI Ch. 87 & 88, 121 °C EC1935/2004 3A Sanitary ADI Free	ACS BAM NSF ROHS WRAS
VITON® (FKM)	EC1935/2004 ADI Free FDA 21 CFR 177.2600 USP CL.VI	ACS 3A Sanitary BAM
PTFE	EC1935/2004 EC2023/2006 ADI Free FDA 21CFR 177.1550 USP CL. VI Ch. 87 & 88, 121 °C	3A Sanitary DVGW W270
PTFE/FKM	EC1935/2004 EC2023/2006 ADI Free BAM FDA 21CFR 177.1550 & 177.2600 ROHS USP CL. VI Ch. 88, 121 °C	
EPM	EC1935/2004 EC2023/2006 ADI Free FDA 21 CFR 177.2600	
Fluoraz	EC1935/2004 3A Sanitary ADI Free FDA 21 CFR 177.2400 & 177.2600 USP CL.VI Ch. 87 & 88	
FEP – SILICONE	EC1935/2004 3A Sanitary FDA 21 CFR 177.1550 & 177.2600 ROHS USP CL.VI Ch. 87 & 88, 121 °C	