

IFRC Standard Acceptable Quality Limit and Penalties Plan for Quality Deviation

IFRC uses the proven method of **Acceptable Quality Level 'AQL'** (or **Acceptable Quality Limit**) to conduct product inspection, which normally shall be included in the tender documentation and contracts. The standard definition of Acceptable Quality Level (AQL) is "*the maximum defective percent (or the maximum number of defects per hundred units) that, for purpose of sampling inspection, can be considered satisfactory as a process average*". A random sampling shall be conducted (based on the AQL tables I and II) to be inspected, and after inspection, according to the number of defects found (critical, major, minor defects), shipment can be accepted or to rejected.

Table I – Sample size code letters

Lot size	Special inspection levels				General inspection levels		
	S-1	S-2	S-3	S-4	I	II	III
2 to 8	A	A	A	A	A	A	B
9 to 15	A	A	A	A	A	B	C
16 to 25	A	A	B	B	B	C	D
26 to 50	A	B	B	C	C	D	E
51 to 90	B	B	C	C	C	E	F
91 to 150	B	B	C	D	D	F	G
151 to 280	B	C	D	E	E	G	H
281 to 500	B	C	D	E	F	H	J
501 to 1,200	C	C	E	F	G	J	K
1,201 to 3,200	C	D	E	G	H	K	L
3,201 to 10,000	C	D	F	G	J	L	M
10,001 to 35,000	C	D	F	H	K	M	N
35,001 to 150,000	D	E	G	J	L	N	P
150,001 to 500,000	D	E	G	J	M	P	Q
500,001 and over	D	E	H	K	N	Q	R

The general inspection level II is normally used to determine the corresponding letter of the lot size. Then this letter which corresponds in the table II to a sampling size to be inspected. The usual AQL used by IFRC is generally: 0 / 2.5 / 4 for Critical / Major / Minor defects.

Table II- Single sampling plans for normal inspection

Sample size code letter	Sample size	Acceptance Quality Limits, AQLs, in percent nonconforming items and nonconformities per 100 items (Normal inspection)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		0.010		0.015		0.025		0.400		0.065		0.10		0.15		0.25		0.40		0.65		1.0		1.5		2.5		4.0		6.5		10		15		25		40		65		100		150		250		400		650		1000																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
		Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re	Ac	Re																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
A	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										</

↑ = Use the first sampling plan below the arrow. If sample size equals, or exceeds, lot size, carry out 100 percent inspection

↓ = Use the first sampling plan above the arrow

Ac = Acceptable number

Re = Rejection number

If AQL is not determined in the tender documents and contracts, then following penalties plan shall apply disregarding selected inspection level of ISO-2859-1 Standards. Penalties will be applicable for each characteristic of the non-conforming goods to the total value of the Purchase Order.

Parameter measured	Level of deviation	Type of defect Major / Minor **	Level of penalties to be applied on total value of lot *
Non-compliance to performance requirement	up to 2 %	Minor	1st occurrence non, 2nd occurrence - 0.5%
	up to 10 %	Major	2%
	up to 25 %	Major	5%
	more than 25 %	Major	10%
Non-compliance on weigh and dimension	up to 5 %	Minor	for each 1% of non-compliance 0.5 % penalties.
	up to 10 %	Major	for each 1% of non-compliance 1 % penalties.
	more than 10 %	Major	for each 1% of non-compliance 2 % penalties.
Visual defects	visual quality not affected	Minor	1st occurrence non, 2nd occurrence - 1 %
	visual quality affected	Major	1st occurrence 5 %, 2nd occurrence - 10 %
Packing / Marking Defects	Goods are not affected	Minor	1%
	Goods are not affected	Major	5%

Special remarks

* Any major non-compliance is be subject to lot refusal at discretion of IFRC.

* AQL and Penalties Plan issued by IFRC for specific goods prevail over this Penalties Plan.

* Maximum cumulative penalties cannot exceed 15 % of the value of the Purchase Order.

** Major defect: defect that is likely to result in a material failure or to render the product not fit for its intended purpose.

** Minor defect: defect that is not likely to reduce materially the usability of the product for its intended purpose, or a departure from established standards of quality, having little bearing on the effective use or operation of the product.