SUPPLIER NAME

SUPPLIER CODE

FAMILY

COMPONENTES MAT.PRIMA USINAGEM

SAP GROUP

CA00

SQI - Supplier Quality Index (Annual Average)

Annual Classification: A

E-mail Contact 1: 
E-mail Contact 2: 
E-mail Contact 3: 

SQI - SUPPLIER QUALITY INDEX


94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00

SQI - SUPPLIER QUALITY INDEX

IQF - Índice de Qualidade do Fornecedor

SQI MONTHLY - SUPPLIER QUALITY INDEX

SUPPLIER QUALITY INDEX

LAST MONTH'S CLASSIFICATION

A A A A A A A

MQI - MATERIAL QUALITY INDEX (Max. Before May/2020: 45%. After May/2020 = 50%)

CAI - CORRECTIVE ACTIONS INDEX (Max. Before May/2020: 10%. After demerit on QSI)

PRI - PROMPT REPLY INDEX (Max. Before May/2020: 10%. After demerit on QSI)

QSI - QUALITY SYSTEM INDEX (Max. Before May/2020: 5%. After 20)

CPI - COMMERCIAL POSTURE INDEX (Maximum Score: 30%)

POI - PROCESS QUALITY INDEX (After May/2020 Dement on QSI)

94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00 94,00

A A A A A A A

IQF - Supplier Quality Index - SQI

Goal = 82

IQF After May/2020: 
[(50% x MQI) + (20% x CPI) + (20% x CAI) x 100 x PRI/100 x PQI/100 x ED/100 x IR/100]

IQF Before May/2020: 
[(45% x MQI) + (10% x CAI) + (10% x PRI) + (5% x QSI) + (30% x CPI) x RI]
MQI - MATERIAL QUALITY INDEX

\[ MQI = (d_1) \times (d_2) \times (d_3) \times (d_4) \times (d_5) \times 100 \]

Where:
- \( d_1 \) is the demerit applied about instances of outsourcing inspection,
- \( d_2 \) until \( d_4 \) are demerits applied about the detection places of no-conformity and
- \( d_5 \) is the demerit on time of stop line (see table).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of outsourcing inspection at Tupy for containments</td>
<td>Qty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quantity of rejected lots on incoming inspection</td>
<td>Qty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quantity of rejected lots on application</td>
<td>Qty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quantity of rejected lots on customer</td>
<td>Qty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Time of Production Line Stop</td>
<td>Qty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

\( d_1 = \text{Demerit applied about instances of outsourcing inspection} \)
\( d_2 = \text{Demerit applied about rejected lots on incoming inspection} \)
\( d_3 = \text{Demerit applied about rejected lots on application} \)
\( d_4 = \text{Demerit applied about rejected lots on customer} \)
\( d_5 = \text{Demerit applied about stop line} \)

<table>
<thead>
<tr>
<th>Qty Lots received</th>
<th>Qty</th>
<th>5</th>
<th>1</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>MQI - Material Quality Index</td>
<td>Grade</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
</tr>
</tbody>
</table>
### CAI - CORRECTIVE ACTIONS INDEX

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity of originated SNCR on incoming inspection</td>
<td>Cty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Quantity of originated SNCR on application</td>
<td>Cty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Quantity of originated SNCR on tupy customer</td>
<td>Cty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>d6 = Demerit for originated SNCR on incoming inspection</td>
<td>Factor</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td></td>
</tr>
<tr>
<td>d7 = Demerit for originated SNCR on material application</td>
<td>Factor</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td></td>
</tr>
<tr>
<td>d8 = Demerit for originated SNCR on tupy customer</td>
<td>Factor</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td></td>
</tr>
<tr>
<td>d9 = Demerit for originated SNCR on field</td>
<td>Factor</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td></td>
</tr>
<tr>
<td>CAI - Corrective Actions Index</td>
<td>Grade</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td></td>
</tr>
</tbody>
</table>

#### PRI - PROMPT REPLY INDEX

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Days of delay response of corrective actions</td>
<td>Cty</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>d10 = Demerit applied for delay response of corrective actions</td>
<td>Factor</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td>1,00</td>
<td></td>
</tr>
<tr>
<td>PRI - Prompt Reply Index</td>
<td>Grade</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td>100,00</td>
<td></td>
</tr>
</tbody>
</table>

**After Mai/2020:** $\text{CAI} = (\text{lowest value between } d6 \text{ e } d9) \times 100$

**Before Mai/2020:** $\text{PRI} = (d10) \times 100$

---

**Notes:**

- **d6** until **d9** are demerits for the detection places (see table).

**Before Mai/2020:** $\text{PRI} = (d10) \times 100$

Where: $d10 =$ Demerit applied for the number of delay days of SNCR(Supplier Non Conformity Report), with proposed corrective actions. The delay days are counted after 5 days of SNCR's issuance (see table).

**After Mai/2020**:

- **CAI** = (lowest value between $d6$ e $d9$) x 100
- **PRI** = ($d10$) x 100
The QSI (Quality System Index) is scored as follows:

**Components and Production Services suppliers**
The maximum score, 100%, is obtained with certification according to IATF 16949. Obs.: For the suppliers only certified with ISO 9001 belonging to these groups, the maximum score is 50%.

**Other Groups suppliers**
The maximum score, 100%, is obtained with certification according to ISO 9001. Obs.: For suppliers not certified with ISO 9001 belonging to these groups, the maximum score is 50% since undergoing an audit of Tupy, based on VDA 6.3.

The CPI (Commercial Posture Index) is calculated by the following criteria:

**Flexibility in Negotiation:**
Objective: Measure how much the supplier is flexible relative to Technical Proposals and Price.

**Response Time of Quotations:**
Objective: Inform if the supplier sent the quotation within the limit time.

**Agility and Availability for Service and Troubleshooting:**
Objective: Assess if the supplier has been available when sought by Tipy and solves problems with agility.

**Proposals and Projects of Saving and Cost Reduction:**
Objective: Assess if the supplier presented some proposal for cost reduction in the annual period.

**Conformity with Procedures Tupy:**
Objective: Assess if the supplier has served all procedures Tupy in the monthly evaluation.

The CPI is obtained using the following formula:

\[ IPC = \text{Flexibility in Negotiation} + \text{Response Time of Quotations} + \text{Agility and Availability for Service and Troubleshooting} + \text{Proposals and Projects of Saving and Cost Reduction} + \text{Conformity with Procedures Tupy} \]
The PQI (Process Quality Index) reports the score of the last audit process and is obtained using the following formula:

\[
PQI = \text{Last Process Audit Score}
\]

Obs.: The PQI is just informative and don’t compose the SQI score.

The DDI (Document Delivery Index) allows for days of delay in delivering requested documents. It can be an action plan, a report, a PPAP or any requested document.

\[
D11 = \text{Demerit per day of delay (Loses 2\% of SQI each day. Limit 20\%)}
\]

The Reincidence Index is calculated as follows way:

\[
IR = \text{Qtd. Reincidences} \times \text{IR}
\]

Where:

\[
\text{Qtd. Reincidences} = \text{Qtd. repetitions of same failure mode.}
\]

\[
\text{IR} = \text{Demérit applied on quantity of reicidences as shows the table beside.}
\]

The Reincidence Index is calculated as following way:

\[
IR = \text{Qtd. Reincidences} \times \text{IR}
\]

Where:

\[
\text{Qtd. Reincidences} = \text{Qtd. repetitions of same failure mode.}
\]

\[
\text{IR} = \text{Demérit applied on quantity of reicidences as shows the table beside.}
\]