

Material Compliance: Substance Conformity as a Mandatory Task in Technical Procurement

Material compliance refers to ensuring that all materials and components used in the procurement and production process meet the applicable legal, normative and customer-specific requirements. For technical buyers, it forms the interface between supplier management, quality assurance and product safety. Those who systematically master substance bans, declaration obligations and documentation requirements avoid costly recalls, customs blockages and liability risks.

Key facts

- Material compliance covers legal substance restrictions, standards, customer requirements and voluntary standards along the entire supply chain.
- Key regulations in practice are REACH, RoHS, conflict minerals regulation and product-specific standards such as the food contact suitability of plastics.
- The basis is usually standardised data exchange formats for substance declarations such as IPC-1752A, supplemented by full declarations or exemption lists.
- Without active attribute maintenance in the material master and clear supplier onboarding processes, compliance remains vulnerable.
- Compliance data has a limited validity and must be revalidated regularly, typically annually or upon regulatory changes.
- Compliance metrics such as declaration coverage and certificate currency can be integrated as KPIs into supplier performance management.

Definition: Material Compliance

Material compliance is the systematic assurance that purchased materials, components and raw materials meet all relevant chemical, normative and contractual requirements and that this is verifiably documented. It is part of supplier and quality management and must be ensured throughout the entire product life cycle.

Distinction from Product Compliance

Product compliance looks at the finished end product and its approval, e.g. CE conformity. Material compliance addresses the upstream stage: the substance composition, origin and documentation of the materials and purchased parts used. The two levels are intertwined, because passing on non-conforming components immediately becomes a conformity problem for the end product. Procurement bears responsibility because it drives supplier selection, specification and contract terms.

Relevant Regulations at a Glance

In Europe, the REACH Regulation with its restriction and information obligations (including the SVHC

candidate list), the RoHS Directive for electronics and conflict minerals reporting are particularly relevant in practice. Depending on the industry, additional requirements apply, such as food contact compliance, drinking water suitability, pharmaceutical or automotive standards. Added to these are customer-specific restricted substance and declaration lists, which are often stricter than the law. Buyers should always check which regulation is binding for which item and market; legal details require case-by-case review.

Methods and Approach for Ensuring Material Compliance

Effective material compliance follows a process from demand capture through supplier selection to ongoing monitoring. It is not a one-off project but a recurring control loop with clearly defined responsibilities between procurement, quality and engineering.

Anchoring Requirements in the Purchase Requisition

The process begins with the purchase requisition (PR). Even at this stage, compliance requirements must be stored as mandatory fields or attachments: permitted materials, prohibited substances, required declarations and standards. If this is neglected, the requirement can hardly be reconstructed later. Sound material classification helps to systematically identify compliance-relevant item groups instead of assessing each item individually.

Requesting Declarations and Certificates

As part of supplier onboarding, substance declarations, test reports and declarations of conformity are requested from suppliers in a standardised way. In practice, material declarations based on recognised exchange formats have become established, distinguishing between full declarations and exemption lists. Contracts should include obligations to update in the event of formulation or legislative changes, to cooperate in audits and to maintain binding commitments for appropriate periods.

Data Management and Attribute Maintenance in the Material Master

Compliance data is master data. Without structured attribute maintenance in the material master, certificates remain inaccessible and checks fail. Master data governance defines who maintains which fields, at what intervals revalidation takes place and how supplier changes are documented. Otherwise, a proliferation of e-mails, scans and local Excel lists quickly develops.

Key KPIs for Steering Material Compliance

Compliance can be measured. Established metrics reveal how complete declarations are, how current the evidence is and how reliably suppliers provide information. These KPIs belong in the routine supplier review.

Declaration Coverage and Completeness

Declaration coverage indicates the proportion of compliance-relevant items that have a valid substance declaration. In mature organisations, values well above 95 percent are typically targeted. In addition, completeness measures whether declarations cover all required substance groups or homogeneous materials or only provide partial information.

Currency and Revalidation Rate

Since substance lists such as the SVHC candidate list are regularly expanded, the validity of declarations must be monitored. The revalidation rate shows what proportion of declarations was

confirmed within the defined time window, often twelve months. A low value is an early warning indicator of pronounced supplier inertia or missing escalation processes.

Supplier Reliability and Response Times

How quickly do suppliers respond to declaration requests, and how often do their statements fail to match inspections? These metrics can be combined with other supplier KPIs such as On-Time In Full (OTIF) in a joint review to obtain a holistic supplier profile and derive targeted development measures.

Risks and Controls in Dealing with Material Compliance

The greatest risks arise not from a lack of regulatory knowledge but from gaps in the process: unchecked purchased parts, outdated declarations and unclear responsibilities. Controls must therefore target the typical weak points.

Supplier Risks and Blind Spot Risks

Sub-suppliers and material usage change unnoticed, especially for long-running items and suppliers with weak financials. Analysing supplier financial health helps assess whether a supplier can invest in quality systems and compliance processes in the long term. Changes in the supply chain without re-declaration are a frequent cause of subsequent compliance violations.

Controls and Verification Processes

Effective controls combine documentation review with sample-based analytical testing, such as X-ray fluorescence or laboratory testing for critical substances. Internal and external checks, up to and including substantive invoice verification regarding agreed compliance surcharges or conditions, ensure traceability. Audit rights in the contract create the basis for additional verification at the supplier.

Deviation Management and Lessons Learned

When compliance violations occur, deviation management determines the consequences: stock blocking, customer notification, re-declaration or re-routing. Systematic follow-up as lessons learned is important: why was the violation not detected earlier, which control point should have intervened? This is how test plans and specifications continuously improve.

Current Developments in Material Compliance

Regulatory requirements are increasing, and digitalisation is changing data exchange. Procurement organisations face the challenge of handling growing declaration obligations without a proportional increase in manual effort.

Growing Regulation and Sustainability Requirements

Substance restrictions are continuously expanded, and sustainability requirements increasingly merge with classic compliance: recyclability assessments, recycling rates and statements on the carbon footprint of materials are emerging as new declaration dimensions. Digital product passport initiatives reinforce this trend. Buyers should think about compliance and sustainability data together, since the same supplier interfaces can be used.

Automation and Data Models

Software-supported compliance systems automatically compare substance lists with declarations and

issue alerts when lists change. However, the benefit depends on data quality: a consistent spend cube and a well-maintained material master are prerequisites for analyses to be reliable at item level in the first place. Interfaces to supplier portals reduce exchange via e-mail.

Compliance in Procurement Strategy and Contracts

Material compliance is increasingly becoming a selection criterion in tenders and a fixed contractual component, even for spot purchases, which are traditionally less documented. When comparing spot purchase vs. framework agreement: framework agreements offer more scope for compliance commitments and audit rights, while spot purchases require short-term verification processes. International procurement under FOB Incoterms also shifts responsibilities that must be clearly regulated contractually.

Typical metrics

Declaration coverage: > 95%

Share of compliance-relevant items with a valid substance declaration

Revalidation rate: > 90% within 12 months

Share of declarations confirmed on time

Supplier response time to declaration requests: < 10 working days

common benchmark for established supplier relationships

Identified compliance deviations: 0 critical deviations

per reporting period; each case triggers deviation management

Practical Example

A mid-sized mechanical engineering company supplies customers in the food packaging industry. During a customer audit it emerges that no current food contact declarations are on file for several plastic components because a sub-supplier had changed the formulation without reporting this. The manufacturer blocks stock as a precaution and loses valuable time until release.

- Compliance requirements were integrated as mandatory fields in the purchase requisition (PR) and standard specifications.
- Supplier onboarding made the submission of standardised substance declarations mandatory, with annual revalidation.
- Attribute maintenance in the material master was centrally organised, including the expiry date of each certificate.
- A quarterly supplier review combines compliance KPIs with OTIF and quality metrics.

Conclusion

Material compliance is not an add-on task but a fundamental prerequisite for deliverable and marketable products. It combines regulatory knowledge, clean master data and consistent supplier management into an end-to-end process. Success comes to those who anchor requirements early in the purchase requisition and specification, request declarations in a standardised way and actively steer by metrics. Those who leave compliance to chance will later face recalls, delivery blocks and liability issues. The effort for a structured system is typically far below the cost of a single compliance failure.

Frequently asked questions

What does material compliance mean?

Material compliance refers to ensuring that purchased materials and components meet all applicable legal, normative and customer-specific substance requirements. This includes REACH and RoHS requirements as well as declaration and documentation obligations. Procurement bears significant responsibility through supplier selection, specification and contract design.

Which laws and regulations affect material compliance?

In Europe, the REACH Regulation with its SVHC candidate list and the RoHS Directive are central. Added to these are industry-specific requirements such as food contact compliance, drinking water suitability or automotive standards, as well as company-specific restricted substance lists. Which regulations apply in a given case depends on the product, market and application and should be reviewed by legal counsel.

Who is responsible for material compliance within the company?

Responsibility is typically shared: engineering defines requirements, procurement secures supplier commitments and contract terms, quality verifies evidence and deviations, and management bears overall responsibility for product safety. Best practice is a clearly documented responsibility matrix with defined escalation paths.

How often must substance declarations be updated?

In practice, annual revalidation has become established, supplemented by event-driven updates when substance lists, formulations or suppliers change. Certified management systems also often require annual confirmations. Contracts should stipulate the obligation to proactively notify changes.

How do you verify the conformity of purchased parts?

Best practice is a combination of documentation review (declarations, certificates, test reports) and sample-based analytical checks, e.g. by X-ray fluorescence or laboratory testing for critical substances. The depth of testing depends on risk and material class. Audit rights in the contract additionally enable on-site verification at the supplier.

What KPIs exist for material compliance?

Typical KPIs are declaration coverage, revalidation rate, supplier response time to declaration requests, and the number of identified deviations per time period. These KPIs can be integrated into the joint supplier review and combined with OTIF or quality metrics. The goal is a holistic risk profile per supplier.