***Project 10988 Glossary - Manufacturing Processes***

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| **German** | **English-US** | **Alternatives/Contexts/Comments** |
| 3D-Druckverfahren | 3D printing process | 3D printing (3DP) |
|  abgebildet | reproduced | mapped, imagedMachining context |
|  Abläüfe | process or flow |   |
|  Abmessungen | dimensions | measurements, depending on context |
|  Abriebfestigkeit | abrasion resistance | AMP context |
| Absätze | recesses | shouldersLaminating process context |
|  abschält | peels off | strips off, shaves offMachining context |
|  Abtragen | removal | ablation, material removalCutting context |
| Additiven Verfahren | additive processes | generative processes |
|  Adhäsionskraft | adhesive force | adhesion forceadhesion strengthBonding context |
| AFK | AFRP aramid fiber-reinforced plastics |  |
|  Airless-Verfahren | airless method | Coatings context |
|  Alkyd-Harze | alkyd resins | Coatings context |
|  Aluminiumblechen | aluminum sheets | Layered composites context |
|  Aluminiumlegierung | aluminum alloy |  Is the UK aluminium preferred here? |
|  Aluminium-Lithium-Werkstoff | aluminum-lithium material |  aluminum lithium alloy material |
|  Andruckkräfte | pressure forces | Riveting context |
| Anhang 1 - Literaturverzeichnis | Appendix 1 – List of References  |  IU Nomenclature DE-EN |
| Anhang 2 – Abbildunsverzeichnis | Appendix 2 – List of Tables and Figures |  IU Nomenclature DE-EN |
|  Anschauungsmodelle | illustrative models | display modelsvisual aid models AMP context |
|  Anschnitt | gate |  Casting context |
| Anspritzungen | gates | Rapid tooling context |
| Antrieb | drive |  |
|  Antriebsleistung | driving power  | propulsive power  |
|  Antriebsmaschine | drive machine | engine, propulsion engine, propulsion machinery |
|  Antriebstechnik | drive engineering |  drive technology |
| Arbeitsebene | working plane | Fused deposition modeling context |
|  Arbeitskammer | working chamber | Electron beam Welding context |
|  Arbeitsperson | employee |  personnel |
|  Arbeitsprozess | work process |   |
|  Arbeitssystem | work system |   |
|  atomare Verbindung | atomic bond | Soldering contextBonding context |
|  atomaren Bindungskräfte | atomic bonding forces | Bonding context |
|  Ätzen von Flächen durch Säuren | etching of surfaces with acids |  Machining context |
|  Aufbauschneidenbildung | built up edge | cutting edge build-upbuilt-up edge formationMachining context |
|  aufgeblasen | inflated | Blow Molding context  |
|  aufgequetschten (Lock Bolt oder Schließringniet) | crimped-on(lock bolt or lock ring rivet) | squeezed-onRiveting context |
| aufgeschmolzen | melt or melted |  Selective laser sintering context |
|  aufgeschraubten (Schraubniet oder Hi-Lock | screwed-on (screw rivet or hi-lock)  | Riveting context |
|  Aufschmelzen | fusing | Selective laser sintering context |
|  Auftrag | Order |   |
|  Auftragsbearbeitung | order processing |   |
| Auftragszeit | Order Time |   |
| Auftragszeiten | Work order time |  Within definition of Vorgabezeit |
|  Aufwand | expenditure |  effort, cost and effortVery context dependent |
| aufweisen | exhibit |  Properties context |
| Aus der Praxis | case study |  IU Nomenclature DE-EN |
|  Ausführungszeit | Execution Time |   |
| Ausführungszeit | Processing Time |  Execution Time also per REFA |
|  Ausgangsmaterial | base material | raw material, starting material, |
|  Ausgangsmaterial | base material | starting material *(Halbzeug - semi-finished product)*Bending context  |
|  ausgehärtet | cured | annealedLayered composites context |
|  ausgestoßen | ejected | etrudedremoval from mold injection Molding context |
|  ausgetrieben |  drive out or cast out or expel | Selective laser sintering context |
|  aushärtbare | age-hardened | age-hardenableFusion Welding context |
|  ausscheidungsgehärteten Aluminiumlegierungen | precipitation-hardened aluminum alloys |  Welded materials context |
|  Außenhaut | skin | outer skinAircraft context, shellLayered composites context |
|  auszuführende | to be executed |  Based on REFA definition Ausführen = Execute |
|  Autoklave | autoclave | Layered composites context |
|  Automatisierungsgrad | degree of automation | level of automation  |
| Automobil- und Luftfahrtindustrie | automotive and aviation industries | automobile and aircraft industries |
| Automobilbau | automobile manufacturing | automotive engineering or industry |
| Basisliteratur | basic reading |  IU Nomenclature DE-EN |
|  Basisprimer | base primer | Coatings context |
| Baugruppe | assembly (noun) |  |
|  Baumusterzulassungen | type approvals |  Additive manufacturing processes context |
|  Bauplatt form | build platform | work platform, build plate mold AMP context |
|  Bauraum | installation space | building areaSelective laser sintering contextinstallation spaceAutomotive modeling |
|  Bauteil | component |  parts in some contexts, usually when together with *Komponent* |
|  Bauteilversteifung | component stiffening | component rigidityBonding context |
|  Bauweise | design method | construction, construction method |
|  Bauweisen | design methods |  as above, in plural |
|  Beanspruchung | stresses | strain, loadBonding context |
|  Bearbeitungsgeschwindigkeit | processing speed | Additive processes context  |
|  Bearbeitungsvorgänge | machining operations |  Machining context  |
| Beeinflussbare Hauptnutzungszeit | Influenceable Main Utilization Time |   |
| Beeinflussbare Tätigkeitszeit | Influenceable Activity Time |   |
| begrenzenden Werkzeugen | limiting tools |  limited toolsDrop Forging context  |
| Beibehalten | preservation | preserving cohesion |
|  Belastbarkeit | load-bearing capacity | Bonding context |
|  Belastung | load |  |
| Belastung  | stress | only in some contexts, such as highly stressed |
| Belastungsfähigkeit | load capacity |  Drop Forging context  |
| Belegungszeit | Occupancy Time |   |
|  Benetzung | wetting | Bonding context |
|  Beplankung | panelling |  plankingAircraft context |
|  Bereich der Schmelze | molten state |  melt range, molten range |
|  berührungsfreundliche | contact-friendly |  tactile surface context |
|  Beschichten | coating |   |
|  Beschichtungstechnik | coating technology  |  coating technique, context dependent |
|  beschossen | bombarded | CMP context |
|  Bestrahlen | irradiation | CMP context |
| betrieblichen Rechnungswesens | operational accounting |  |
|  Betriebseinrichtung | operating facility |   |
|  Betriebsmittel | Operating Resources |   |
| Betriebsmittelausführungszeit | Equipment Execution Time | Operating Resources Execution Time also per REFA |
| Betriebsmittelgrundzeit | Equipment Basic Time | Operating Resources Basic Time |
| Betriebsmittelrüstgrundzeit | Equipment Basic Setup Time | Operating Resources Basic Setup Time also per REFA |
| Betriebsmittelrüstzeit | Equipment Setup Time | Operating Resources Setup Time also per REFA  |
| Betriebsmittelverteilzeit | Equipment Allowance Time | Operating Resources Allowance Time also per REFA |
|  betriebswirtschaftlichen Kennzahlen | operational key figures |   |
|  Beurteilungsmerkmale | assessment of characteristics |  assessment of features |
|  Bewegungsdaten | movement data |  Stereolithography context |
|  Biegemoment | bending moment | Bending context  |
|  Biegesteiﬁgkeit | bending rigidity | materials context, stiffness in some other contexts |
|  Biegung | bending |  load condition context, Belastungszustände |
|  Bindemittel | bonding agent | binding agent, binder3D printing context |
| Bindungsbrücken | bond bridges |  Additive manufacturing processes context |
|  Bindungsenergie | bonding energy | binding energyBonding context |
|  Bindungsmechanismus | bonding mechanism | binding mechanismBonding context |
| bionischen Konstruktionen | bionic designs |  bionic constructions,Selective laser sintering context |
|  Blasformen | blow molding |   |
|  Blasformprozess | blow molding process |   |
| Blech- und die Massivumformung | sheet metal forming and solid forming |  |
| Blechzuschnitten | sheet metal blanks | Deep-drawing context |
|  Bohren | drilling | Machining context |
| Brachzeit | Interruption Time |   |
| breiigen Zustand | pasty state |  mushy state, pulpy state |
| breiiges | pasty | selective electron beam melting context |
|  Brennen | firing | CMP context |
|  CAD-Daten | CAD data |  Additive manufacturing processes context |
| CFK carbonfaser- verstärkte Kunststoffe | CFRP carbon fiber-reinforced plastics |  |
|  chemische Bearbeitung | chemical processing | chemical metal processing  |
|  chemischen Wechselwirkungen | chemical interactions | Bonding context |
|  chemisches Abtragen | chemical removal | chemical ablation Machining context  |
|  Clips | clips |  Aircraft assemblies context, automated riveting |
|  CNC | computer numerical control |  Machines, machinery context |
|  CO2 und Schadstoffemissionen | CO2 emissions and pollutants |  or pollutant emissions |
|  Collar | collar |  Riveting context |
|  Computer Aided Machining | Computer Aided Manufacturing | Computer Aided Machining, slightly less common Additive manufacturing processes context |
| Concurrent Engineering | Concurrent Engineering | Rapid Prototyping context |
| Cyber-physische Produktionsanlagen | cyber physical production plants | Cyber-physical production plantsThe term is commonly used with or without the hypen  |
|  Dampfkapillare | keyhole |  vapor capillaryLaser beam Welding context |
|  Dauerfestigkeit | fatigue strength |  long life fatigue strength (LLF) in Automotive context (Betriebsfestigkeit) |
|  Decklackschicht | top coat | Coatings context |
|  Dehnungssteiﬁgkeit | elongation rigidity |   |
|  Dichte | density | thickness context-dependent |
| dichtende Verbindungen | sealing joints |  Bonding context |
|  Drehen | turning | lathing |
|  Drei-Schicht-Betrieb | three-shift operation |  three-shiftMachining context |
|  Druck | compression | load condition context, Belastungszustände |
|  Druckeigenspannungsfeld | residual compressive stress field | CMP context |
|  Druckinjektion | resin injection  |  pressure injection, Pultrusion context, See Figure 2.10 |
|  dünnwandiger | thin-walled | Machining context |
| durchgesetzt | implemented | asserted, established |
|  Durchmischung | mixing | Friction stir welding context |
|  Duroplast | Duroplast | thermosetDuroplast is a common, German trademarked thermosetting plastic. *Thermoset* is the broader term.Layered composites context |
| dynamischen Belastungsfähigkeit | dynamic load capacity |  See aboveDrop Forging context  |
| efﬁzienter | efficient | efﬁcienterCyber physical context |
| Eigenschaft | property | characteristic |
| Eigenspannung | residual stress |  |
|  Eigenspannung | residual stress | internal stress, internal tension Welding context |
|  einbaufertig | ready for installation |  ready-to-fitready for installation |
|  Einﬂussgröße | Influence Factor |   |
|  Einﬂussgrößen | inﬂuence factors |  inﬂuences, influence parametersBonding context |
| Einführung | introduction |  IU Nomenclature DE-EN |
|  eingespannt | clamped |  tensionedStretch-forming context |
|  eingeteilt | classified |  divided as per DIN 8580 |
|  Einguss | sprue |   |
| Eintauchstelle | plunge location | immersion point Friction stir welding context |
|  Einwirkung von Elektrolyten unter elektrischer Spannung | exposure to electrolytes under electrical voltage |  Machining context |
|  Einzel- oder Kleinstserienfertigung | individual or small batch production |   |
|  Einzel- oder Kleinstserienfertigung | individual or small batchproduction | repetition Additive manufacturing processes context |
|  Einzelfertigung | individual production |  piece production, individual manufacture  |
| Eisenwerkstoffe | ferrous materials |  |
|  elastischen Grenze | elastic limit  | elastic boundary |
|  elektrochemische Bearbeitung | electrochemical processing | electrochemical metal processing  |
|  elektrochemisches Abtragen | electrochemical removal |  electrochemical ablationMachining context |
| elektronenstrahlbasierten (SEBM) | selective electron beam melting (SEBM) |  Selective laser sintering context |
|  elektrostatischen Spritzpistolen |  electrostatic spray guns | Coatings context |
|  eloxiert |  anodized | eloxedLayered composites context |
|  Endkontur |  final contour |  Additive manufacturing processes context |
|  endkonturnahe | near-net-shape | near net shapeAMP context |
| Entfestigung | softening | Welded materials context |
|  Entformung | demolding |   |
|  Entwicklerschicht | developer layer | Selective beam melting context (SLM and SEBM)  |
|  Epoxidharze | epoxy resins | AMP context |
| Erholungszeit | Recovery Time |   |
|  Erholungszeiten | Recovery Time |   |
|  Ermüdung | fatigue |   |
|  erschmolzenen | melted | cast  |
| Erstarrung | solidification |  Welding context |
|  Ertrag | revenue |  yield, return |
|  Extruder (Plastiﬁziereinheit) | extruder (plasticizing unit) |  (plastiﬁcation unit)Injection Molding context |
| Fahrgestelle | frame or undercarriage | aircraft = undercarriage, landing gear automobile = chassis |
|  Fahrwerk | frame or undercarriage | aircraft = undercarriage, landing gear automobile = chassis |
|  Fahrwerksteile | undercarriage components |  |
|  Falten | wrinkles | creases, folds |
|  Fasergewebe | fibrous woven fabric | fibrous fabric, fabricLayered composites context |
|  Fasern | fibers |   |
|  Faserverbundwerkstoffe | fiber-reinforced composites | fiber composites |
|  Fertigerzeugnisse | finished product |   |
|  Fertigung | production |  in production line context |
|  Fertigungsaufgabe | manufacturing task |  production task |
|  Fertigungseinrichtung | production machinery |  production line or manufacturing machinery or line |
|  Fertigungsergebnis | manufacturing result |  production result |
| Fertigungskosten  | production costs |  |
|  Fertigungsplanung | production planning  | manufacturing planning, in context of manufacture planning |
|  Fertigungstechnik | manufacturing technology | manufacturing engineering |
|  Fertigungsverfahren | manufacturing processes | manufacturing methods production processes production methods |
|  festhaftende Schichten | firmly adhering layers | Coatings context |
|  Festigkeit | strength | context dependent: stability, cohesiveness |
|  Festigkeitsanforderung | strength requirement |  structural requirement,Riveting context |
| Festigkeitseigenschaft | strength properties |  |
|  Festigkeitsträgern | reinforcing materials (fibers) |   |
|  Festkörperbereich  | solid state  |  occasionally solid phase, depending on context. (*solid phase state*, *liquid phase state* and *gaseous phase state* are technically correct, but rarely used.) |
|  Fixierungssysteme | fixation systems  |  attachment systems,affixing systemsAssembly processes context |
|  Flächennahtdopplern | surface seam doublers | doublers,Aircraft manufacturing & Bonding context |
| flächigen | planar | flacial  |
|  Fließgrenze | yield point | related to: flow stress/yield stress (Fließspannung/Streckgrenze) |
|  Fließpressen | extrusion |  impact extrusion  |
| Fließspannung  | flow stress | followed by (yield point) in Course BookForming technology context  |
|  Flugzeugbau | aircraft manufacturing |   aircraft engineering or industry |
|  ﬂüssige Metall | liquid metal |   |
|  Folien | foils  |  in metals context |
|  Folien | films | in plastics context |
|  Folien, Platten | sheets, plates |  films, sheets  |
|  Formelemente | form elements | mold element, shaping elements |
| Formen | forming, molding | in DINForming for shapingmolding if from powder or granulated stuffmolding = Casting contextforming = Primary shaping context |
|  Formenbau | mold making |  mold construction |
|  Formgenauigkeit | shape accuracy |  form accuracy |
|  Formherstellung | mold making | mold productionform production |
|  Formkasten | molding box |  molding flask = UK term |
|  Formkörpe | shaped bodies | molded bodies, molded/shaped articles |
|  formlosen Stoffen | formless materials | formless substances |
|  Formstoff | mold material |   |
| Formstoffe | molding materials | molding materialforming material |
| Formteilen | molded parts | molded components, molded bodies |
| Formwachse | molding waxes | form waxesmold waxesFused deposition modeling context |
|  Formwerkzeug | mold | molding toolmold tool, forming toolDIN & in the sentence structure makes sense |
| Formwerkzeug | forming die | forming toolmolding toolStretch forming context  |
| Fragen zur Selbstkontrolle | self-check questions |  IU Nomenclature DE-EN |
|  Fräsbearbeitungszentren | milling machining centers | Context = CNC machines or CNC milling machines (CNC-Fräsmaschinen) also referred to as machining centers  CNC = Computer Numerical Control Machining context |
| Fräseinrichtungen | milling equipment | Laminating process context |
| Fräsen | milling | metal works |
|  Fräsen | milling | item |
|  Freiformschmieden | open die forging | Drop Forging context  |
|  Fügelinie | joining line | joint lineFriction stir welding context |
|  Fügen | joining |   |
|  Fügespalt | joint gap |  Friction stir welding contextsheet separation in Resistance welding context |
|  Fügeteiloberfläche | adherend surface | Bonding context |
|  Füller | filler | Coatings context |
|  Funken überschlägt | spark flashes over | Machining context |
|  Funkenerosion | spark erosion | electrical discharge machining  |
|  Funktionsabläufe | functional processes | functional proceduresAssembly processes context |
| Funktionstests | functional testing | Rapid manufacturing context |
| Fused Deposition Modeling | Fused Deposition Modeling |  Fused deposition modeling context |
| Gasaufnahme | gas absorption |  Welding context |
|  gasförmigen, ﬂüssigen oder festen Zustand | gaseous, liquid or solid state |   |
| gebogenen Rohren | bent pipes | bent conduits, curved conduits, bent tubes, curved tubes |
|  gebracht | brought or transformed |  yielded, *plastically* transformed/yieldedForming technology context  |
|  Gebrauchsmustern | utility models |  Additive manufacturing processes context |
|  gefrästen | milled |  Machining context |
|  Gefüges | microstructure | structureframework, microstructureRiveting context See Figure 2.27item |
|  Gefügestruktur | microstructure |  Casting context |
|  gegossen | poured |   |
|  Gelege | non-woven fabrics | scrims - used in the textile industryLayered composites context |
| geometrisch bestimmten Schneidenformen | geometrically defined cutters  | geometrically defined cutting patterns or patterns, as in context above  |
|  geometrisch unbestimmten Schneiden | geometrically undefined cutter | Machining contextitem |
|  geometrische Daten | geometric data |  Additive manufacturing processes context |
|  Gerätes | device or equipment |  Selective laser sintering context |
|  geringer Umformkraft | low forming force |   |
| Gesamtheit | totality | aggregate or whole |
| gesamtheitliche | holistic |  |
|  Gesamtschichtdicke | total layer thickness | coating thickness (total)Coatings context |
|  geschweißten Halbschalen | welded half-shells | aircraft manufacturing using Tungsten inert gas welding  |
|  Gesenkschmieden | drop forging | die forgingForming technology context  |
|  gestört | disturbed |  |
|  geteilte Werkzeug | split mold |  split tooldivided tool, partitionedInjection Molding context |
|  Gewebe | woven fabrics |  fabricsLayered composites context  |
|  Gewichtseinsparung | weight reduction  |   |
|  Gewichtsverhältnis | weight ratio |   |
| Gewindebohren | tapping | Context: cutting a female screw thread |
|  gezogen | drawn |  wroughtStretch-forming context |
| GFK | GFRP glass fiber-reinforced plastics |  |
|  Gießanlage | casting system, casting plant/installation |  |
|  Gießen | casting |  within primary shaping main group, along with extrusion  |
|  Gießereitechnik | casting technology |  casting technique, foundry technology or engineering, or simply casting, depending on context |
|  Gießmethode | casting method |   |
|  Gießverfahren | casting process |   |
|  Glasfaserfolien (GFK) | glass fiber film (GFRP) | GFRP context Layered composites context |
|  Glasfasermatte | glass fiber mats | Layered composites context |
|  Gleichspannungsimpulsen | DC voltage pulses |  Machining context |
|  Granulat | granules |  granulategranule |
|  Gravur | engraving | Drop Forging context   |
|  Grenzschicht | boundary layer | Bonding context |
|  Größen | magnitudes | sizes, ratingsBonding context |
|  großﬂächiges Kleben | large surface area bonding | Large-scale bondinglarge areaBonding context |
|  großformatigen Blechen | large-format sheets |   large-scale sheetsStretch Drawing context  |
|  Großmontagezellen | large assembly cells |  Aircraft assemblies context |
| Großschalen | shells |  Aircraft assemblies context, automated riveting |
| Großserie | large-scale production |  |
|  Grundierungsmittel | primer |  undercoatingLayered composites context |
| Grundzeit | Basic Time |   |
|  Grünling | green compact |  materials & metallugy context |
| Gruppe | group |  |
|  Gussgehäuse | cast housing |  cast chassis,  |
|  Gussstück | casting | casting piece |
|  Gussteile | cast parts | castings |
|  Haftfestigkeit | adhesive strength |  adhesionAMP context |
|  Halbzeuge | semi-finished products |  wrought products, wrought materialsLayered composites context  |
|  Härtersystem (eingemischten) | (mixed in) curing system |  hardener system (mixed)Layered composites context  |
|  Härtersysteme | hardening agent |  hardening system |
|  Hartmetall-Wendeschneidplatten | carbide indexable inserts |  carbide insertscarbide cutting inserts, indexable carbide insertsMachining contextitem  |
|  Haupteinﬂussfaktoren | main influencing factors | main input factors  |
|  Hauptgruppe | main group |  DIN 8580  |
| Hauptnutzungszeit | Main Utilization Time |   |
|  Hautfeldern | skin panels |  Aircraft assemblies context |
|  Heißluftrohrleitungen | hot-air piping | aircraft manufacturing usingTungsten inert gas Welding context |
|  herausgebrochenen | broken off |  broken out |
| Herstellkosten | production costs | manufacturing costs |
|  Herstellung | production |  manufacture, manufacturing |
|  Herstellung | fabrication rather than production  |  rather than production Additive processes context  |
| Hinterschnitte | undercuts | Laminating process context |
|  hoch belasteten Werkstücke | highly stressed workpieces | highly loaded work piecesCMP context |
| hochbelastete | highly stressed | highly loaded |
|  Hochgeschwindigkeitsbearbeitungszentren | high speed machining centers |  no hypenMachining context  |
| Hochgeschwindigkeitszerspanung | high speed cutting (HSC) | high speed milling (HSM)high speed machining (HSM) |
| höchst belastbare | extremely loaded | extremely stressed |
|  hoher Geschwindigkeit | high velocity | high speedCMP context |
|  hohlen Formkörpern | hollow molded bodies |    |
|  Hohlkörper | hollow body | Deep-drawing context |
|  Hohlräume | cavity |   |
|  Honen | honing |  |
| Hüftpfanne | acetabulum | Implementation context |
|  Hybridbauweise | hybrid constructions |  hybrid designs |
|  Hybridfügen | hybrid joining | Bonding context |
| Implan tate | implants | implantatesRapid manufacturing context |
|  Isoliereigenschaften | insulation properties | insulating propertiesAMP context |
| Kalandrieren | Calendering |   |
|  Kaltumformung | cold forming | Forming technology context    |
|  Kapitalbindungskosten | capital commitment costs |   |
|  Karosseriebau | body construction |  body manufacture  |
|  Keimbildung | nucleation |   |
|  Kern +derivatives | core |  cavity |
| Klausurfragenkatalog (KFK) | Exam question catalog |  IU Nomenclature DE-EN |
|  Klebeﬂächen | adhesive surfaces | Bonding context |
|  Kleben | adhesive bonding |   bondingadhesive bonding, subgroup in joining context, |
| Kleben | adhesive bonding | bondingBonding context |
|  Klebeschicht | adhesive layer | Bonding context |
| Klebetechnik | bonding technology | bonding techniqueadhesive bonding technique,Bonding context |
|  Klebetechnologie | adhesive bonding technology | bonding technologyBonding context |
|  Klebeverbindung | adhesive joint | bond adhesive connection, Bonding context |
| Klebeverbindung | adhesive joint | adhesive bondBonding context |
|  Klebfuge | bond line | glued jointBonding context |
|  Klebstoffes | adhesive |  Bonding context |
|  kleine Stückzahlen | small quantities | small batches, context dependent |
|  kleinen Stückzahlen | small batches |  small quantities, context dependent |
| Kleinserie | small batch | small series |
|  klimatisiert | air-conditioned | climatized |
|  Kohlefaserverbundwerkstoffe | carbon fiber composite |   |
| kohlenstofffaserverstärkte Kunststoffe | carbon fiber-reinforced plastics |  |
| Komponent | component |  |
|  Konstruktionsphilosophie | design philosphy |  engineering philosphy or construction philosphy |
| Konstruktionsprinzip | design principle | engineering principleconstruction principle |
|  Konstruktionswerkstoffe | construction materials | design materials |
|  Kornbildung | grain formation |  grain build-upFusion Welding context |
|  Korrosions-, Hitze- und Verschleißbeständigkeit | corrosion, heat and wear resistance |  |
|  Korrosionsschutz-Grundierung | anti-corrosion primer | Coatings context |
|  Kostenart | cost element |   |
| Kostenrechnung | cost accounting |  |
|  Kostenstelle | cost center |   |
|  Kostenträger | cost unit |   |
|  Kräfte und Spannungen | forces and stresses |   |
|  Kraftﬂuss | stress flow | force flow |
|  Kraftübertragung | force transmission | Bonding context |
|  Kraftverteilung | force distribution | Bonding context |
| Kristallbildung | crystal formation |  Welding context |
|  Kristallbildung | crystal formation |  crystal build-upFusion Welding context |
| Kristallwachstum | crystal growth |  Welding context |
|  Kugeln | balls | beads CMP context |
|  Kugelstrahlen als Verfestigungsstrahlen (Verfahren) |  shot peening  | shot blastingKugel... shot blasting or shot peeningVerfestigungs… shot peening only |
|  Kühlkanäle | cooling channels |   |
|  Kunststoffen | plastics |  not plastic materials |
|  Kunststoffgranulat | plastic granules | plastic granulatenurdle(s), plastic granules  |
|  Kunststoffverbundbauteil | plastic composite component |  or part, assembly  |
| Lackierschicht | paint layers | coating layer,paint finishes Coatings context |
|  Lackiertechnik | painting technology | Coatings context |
|  Lackierungen | paints | paint finishes Coatings context |
|  Lagerbindungskosten | inventory costs |   |
|  Laminat | laminate | Layered composites context   |
|  Landeklappen | flaps | landing flapsAircraft manufacturing & Bonding context |
|  Längenausdehnung | linear expansion | length expansionlinear expansion  |
|  Längsnahtdopplern | longitudinal seam doublers | doublersAircraft manufacturing & Bonding context |
|  längsnahtgeschweißten Rohrstücken aus Titan | longitudinally welded titanium tube sections |  longitudinally welded titanium tubes aircraft manufacturing usingTungsten inert gas Welding context |
| Längsversteifungen | longitudinal stiffeners | aircraft manufacturing & Bonding context |
|  Läppen | lapping | Machining context |
|  Lauf | runner |  Casting context |
|  lauffähige | run capable | runnableAutomotive testing context |
| lauffähige | runnable | Rapid Tooling context |
| Layer Laminated Manufacturing (LLM) | Layer Laminated Manufacturing (LLM) | Laminating process context |
| Layer Object Modeling (LOM) | Laminated Object Manufacturing (LOM) | Layer Object Modeling (LOM)Laminating process context |
|  Legierungsbestandteil | alloying element |  alloying constituent |
| Leichtbau | lightweight construction | lightweight engineering, lightweight design |
|  Leichtbau | lightweight construction |  lightweight design |
|  Leistungsdichte | power density |  energy densitypower densityelectron beam welding context |
|  Leistungsgrad | Performance degree |   |
|  Leistungsrechnung | performance accounting |  results accounting |
|  Leitwerk | tail unit | tailplane, empennageLayered composites context |
| Lektion | unit |  IU Nomenclature DE-EN |
| Lernziele | study goals |  IU Nomenclature DE-EN |
| Lernzyklus | section |  IU Nomenclature DE-EN |
|  Lochen | punching | Separating (punching) context |
|  Long Tail | long tail |   |
|  Long Tail Bereich | long tail segment |   |
| Lösungen: Fragen zur Selbstkontrolle | solutions for self-check questions |  IU Nomenclature DE-EN |
|  Löten | soldering |  brazing, subgroup in joining context, |
|  Luft- und Raumfahrt | aerospace | when air & space combined  |
| Luftverteilers | air distributor | Rapid Tooling context |
|  Lunker | blowholes |   |
|  Magnetisieren | magnetization | CMP context |
|  Maschinen- und Anlagenbau | machinery and plant engineering |   |
| Maschinenbau | machine manufacturing | machinery manufacturing (mechanical engineering doesn’t fit in several contexts) |
| Maschinenbau, Automobilbau und Flugzeugbau | machine manufacturing, automobile manufacturing and aircraft manufacturing |  |
| Maschinenbau, Automobilbau, Flugzeugbau | machine, automobile and aircraft manufacturing  | or engineering |
| Maschinenbau, Fahrzeugtechnik, Flugzeugbau | machine manufacturing, automotive engineering, aircraft manufacturing |  |
|  Maß der Adhäsion | degree of adhesion | measure of adhesionBonding context |
|  Maß-, Form- und Lageabweichung | dimensional, form and positional deviation |   |
| Maß-, Lage- und Formgenauigkeit | dimensional, positional and form accuracy |  |
| Massenfertigung | mass production |  |
| Massenproduktion | mass production |  |
| Maßgenauigkeit | dimensional accuracy | AMP context |
| Maßgenauigkeiten | dimensional accuracies | Rapid Prototyping context |
|  Materialanhäufung | material accumulation |   |
| Materialüberhängen | material overhangs | Multi-jet Modeling Context |
|  Matrixwerkstoffen | matrix materials |   |
|  Matrize | die |  tool, matriceDeep-drawing context |
|  Matten | mats | Layered composites context   |
| mechanischen Formschluss | mechanical form fit | mechanical form closuremechanical rigid connectionBonding context |
|  Mengenleistung | quantity performance |  volume output, quantity output, quantity performance as per REFA |
| Merke | note |  IU Nomenclature DE-EN |
|  Metallfolien | metal foils  |  Laminating process context |
|  metallischen Pulver | metallic powder |  materials context |
|  Metall-Phosphat-Schicht | metal-phosphate layer | Coatings context |
|  Metallpulver | metallic powder |  materials context, otherwise metal powder |
|  Metallverarbeitung | metalworking | metal working metal processingMachining context |
|  Mikro-Deformationen | micro-deformations | CMP context |
|  Mischkristallbildung | solid solution formation | mixed crystal formation Soldering context |
| Modell | pattern  | Casting context, model is also used |
|  Modellbau | model making |  model construction, research indicates that *pattern* is used in the Casting context. |
| Modellbau | pattern making | Casting context, model is also used |
|  Modelleinrichtung | pattern equipment | pattern set-up |
|  Modelltrauben | pattern clusters  |  pattern tree |
| Modulbeschreibung | module description |  IU Nomenclature DE-EN |
|  MTM Methode (Methods-Time Measurement) | MTM- Methods Time Measurement |   |
| Multi-Jet Modeling (MJM) | Multi-Jet Modeling (MJM) | Multi-jet modeling context |
|  Nacharbeit | reworking | machining, finishing work, subsequent work |
|  Nahtformen | seam forms | weld shapeswelding context |
|  Napf | cup | Deep-drawing context |
|  Narbungen |  grain | graining surface texture context |
| Nebennutzungszeit | Ancillary Utilization Time |   |
| Nebennutzungszeit | Ancillary Utilization Time |   |
| Neigung | tendency |  or propensity or tendency = Tendenz |
|  Nennmaß | nominal dimension |  nominal dimension nominal size |
| Netzteilnehmer | network subscribers | Cyber physical context |
|  neuartigen Werkstoffen | novel materials |   |
|  nicht korrosionsbeständigen Materialien | non-corrosion resistant materials |  |
|  nicht mischbar | immiscible |   |
|  Niederhalter | blank holder |  Deep-drawing context |
|  Niederhalterkraft | blank holder force |  Deep-drawing context |
|  Nieten | rivet |   |
|  Nietverbindungen | riveted joints |  |
|  Nutzlast | useful load | utilities load, payload |
|  Nutzlastanteil | payload ratio |   |
| Nutzlasten | useful load | utilities load, payload |
|  Nutzungsphase | service life  |  use phase |
|  Ober- und Untergesenk | upper and lower die | Drop Forging context   |
|  Oberﬂächengüte | surface finish | Coatings context |
| Oberﬂächenqualität | surface quality | Rapid prototyping context |
|  Oberﬂächenstruktur | surface structure |   |
|  Oberﬂächenverfestigungs-Prozesse | surface hardening processes | CMP context |
| Oberﬂächenzustände | surface conditions | Rapid tooling context |
| oberﬂächlich aufgeschmolzen | superficially melted |  Selective laser sintering context |
|  Oberkasten | Cope |  = top-half of molding box |
|  Ölbad | oil bath |  Drop Forging context  |
|  optische Effekte | optical effects | visual effectsCoatings context |
| original Serien-Kunststoffsorten | original series plastic grades | Rapid Tooling context |
|  Passnieten | fit-rivets |  fitting rivetsfitted rivets |
| Pflichtfach | required course |  IU Nomenclature DE-EN |
| Pflichtliteratur | required reading  |  IU Nomenclature DE-EN |
|  Phasengrenzﬂächen | phase boundaries | Bonding context |
|  Phosphatsalzlösungen | phosphate salt solutions | Coatings context |
| Piezo-Injektor | piezo injector | 3D Printing Context |
|  plastiﬁziert | plasticised | plasticizesplasticiﬁes, plastiﬁzesFriction stir welding context |
|  plastische Formgebung | plastic forming | Forming technology context  |
|  plastischen Bereich | plastic range |  plastic stateplastic rangeForming technology context   |
|  Platinen | blanks | Deep-drawing context |
|  Platten | plates | Deep-drawing context |
|  Plattenwerkstoffe | sheet materials |  board materialssheet materials |
| Poly-Jet-Verfahren (PJM) | Poly-Jet Modeling (PJM) | Multi-jet modeling context |
|  Porenraum | pore space |  pore volume |
|  Positiongenauigkeit | position accuracy |   |
|  Pressdrucke | mold pressure |  molding pressure |
|  Pressschweißen | pressure welding | Welding context |
|  Pressvorgang | pressing process |  pressure welding (Pressschweißen) context |
| Primärstruktur | primary structure | = load-bearing main structure |
| Produktion | production |  |
|  Produktionsanlage | production system |  production facility, production plant,  |
|  Produktionskosten | production costs |   |
| Produktionstechnik | production technology | production engineering |
|  Proﬁlüberdeckung | proﬁle overlap |   |
|  Prozessketten | process chains |  Additive manufacturing processes context |
| Prozesszone | process zone | electron beam Welding context |
|  punktförmig | punctiform |  point-like Machining context |
| Putzen, Schleifen, Strahlen | buffing, grinding and blasting |   |
|  Quer- und Seitenrudern | ailerons and rudders | aircraft manufacturing & Bonding context |
| Randbedingung | boundary conditions |  framework conditions in some contexts |
| Randbedingung | boundary conditio | repetition Selective laser sintering contextAdditive manufacturing processes context |
| Randzone |  boundary zone | border areaborder zone, marginal zoneCMP context |
|  Rapid Prototyping, Rapid Tooling, Rapid Manufacturing | Rapid Prototyping, Rapid Tooling, Rapid Manufacturing |   |
|  Rationalisierungseffekte | streamlining effects |  rationalization effectsMachining context |
|  Räumen | broaching |  Machining context |
| Rautiefen | roughness |  roughness depth |
|  rechtliche Aspekte | legal aspects | legal issues Additive manufacturing processes context |
|  REFA-System | REFA-System |   |
|  Reichweite | range | Bonding context |
|  Reinigungsstrahlen | abrasive blast cleaning | blast cleaningCMP context |
| Rekristallisationstemperatur |  recrystallization temperature | Forming technology context    |
| Repetitorium | review book |  IU Nomenclature DE-EN |
|  Rissausbreitung | crack propagation | aircraft manufacturing & Bonding context |
|  Risse | cracks | fissuresDeep-drawing context |
|  Rissproblematik | cracking problem | CMP context |
|  röhrenförmiger Hohlraum | tubular cavity | tubular coretubular cavity,Laser beam welding context |
|  Rohteil | raw part |  unmachined part, blankDrop Forging context  |
| Ronden | circular blanks | Deep-drawing context |
|  Rotationsbewegung | rotary motion | rotational movement rotational motionFriction stir welding context |
|  Rumpfpaneele | fuselage panel |  Layered composites context |
|  Rumpfschale | fuselage shell |  Aircraft assemblies context |
| Rüsterholungszeit | Setup Recovery Time |   |
| Rüstgrundzeit | Setup Basic Time |   |
| Rüstverteilzeit | Setup Allowance Time |   |
|  Rüstvorgänge | setup procedures | set-up processes AMP context |
| Rüstzeit | Setup Time |   |
| Sachliche Verteilzeit | Functional Allowance Time | Factual Allowance Time also per REFA |
|  Sägen | sawing | Machining context |
|  Sandwich-Bauteile | sandwich components | sandwich partaircraft manufacturing & Bonding context |
|  Schaffen | creation (create cohesion) |  |
|  Scherschneiden | shearing | shear cuttingSeparating (punching) context |
|  Schichtverbund | layered composite | layer bonding, multilayer composite  |
|  Schichtverbunde | Glass laminate aluminum reinforced epoxy (GLARE)  |  glass fiber reinforced aluminum as in Figure 1.6  |
|  Schichtverbunde | layered composite | multilayer composite |
|  schichtweise | layer upon layer | or layer by layer, hyphenated versions are also commonmulti-jet & poly-jet modeling |
| schichtweiser Aufbauschichtweise Aufbau | layer upon layer construction | layer by layer construction,hyphenated versions are also common(layered construction if the piece is already complete)  |
|  Schlagempﬁndlichkeit | impact sensitivity | impact temperatureAMP context |
|  Schleifen | grinding | Machining context |
| Schlickermasse | slurry |  ceramic slurry in Casting context |
|  Schließringen | lock rings | Riveting context |
|  schmelzbar | meltable | can be melted, can melt, possible to melt |
|  Schmelze | molten mass | melt (noun) liquid state of material during castingmelt = Welding context |
| Schmelzschicht | melting layer | molten mass layerFused deposition modeling context |
|  Schmelzschweißen | fusion welding | Welding context |
|  Schmiedegesenk | forging die |  forging tool, Context specificDrop Forging context   |
|  Schmiedehämmern | forging hammers |  Drop Forging context  |
|  Schmieden | forging |   |
| Schmiedestück | forged piece | forging,*forged piece* is used within the course book rather than the more common forgings for the sake of clarity  |
|  Schneiddrähte | cutting wires |   |
|  Schneiden | cutting |  shearingSeparating (punching) context |
|  Schneidenform | cutter shape | for geometrically defined cutters; not for geometrically undefined cuttersCutting context |
|  Schneidstoff | cutting material |   Machining context |
|  Schrumpfung | shrinkage |  |
|  Schub(auf Schub) | in shear | Bonding context |
|  Schubkräfte | shear strengths |   materials context |
|  Schutzgas | shielding gas |  inert gasFriction stir welding context |
|  Schweißen | welding |  subgroup in joining context, |
|  Schweißnahtgüten | weld seam quality |  weld gradesTungsten inert gas Welding context |
|  Schweißstelle | welding position |  welded jointweld,Welding context |
|  Schweißverbindungen | welded joints |  Welding context in aircraft assemblies |
|  Schweißzone | weld zone | Fusion Welding context |
|  Schwindung  | shrinkage  |  Welding context |
|  Schwingbelastung | oscillating load |   |
|  Schwingungsdämpfung | vibration dampening | vibration damping Bonding context |
|  Schwingungsfestigkeit | vibration resistance |  Layered composites context |
| Sekundärstruktur | secondary structure |  |
| Selektive Maskensintern (SMS) | selective mask sintering (SMS) |  |
| Selektiven Strahlschmelzen (SLM) | selective laser melting (SLM) |  Selective laser sintering context |
|  Selektives Lasersintern (SLS) | selective laser sintering (SLS) |  Selective laser sintering context |
|  Senkerodieren | die-sinking EDM | Drop Forging context  |
|  Seriengröße | series size |   |
| serienproduktion | series production |  |
|  Setzprozess | automated process | setting process process control,Riveting context See Figure 2.27 |
| simultaneous engineering | simultaneous engineering | Rapid Prototyping context  |
|  Sintern | sintering |  within primary shaping main group, along with pressing |
|  SOLL-Zeiten | Target Times |   |
|  Span | chip | shaving Machining context |
| Spänen | chips | shavingsMachining context |
|  Spannung |  stress |  confirm in contextForming technology context  |
| Spannungen | stress |  |
|  Spannungsimpulsen | electrical voltage pulses |  Machining context |
|  Spannungsverteilung | stress distribution | stress distributionboth terms equally common in Bonding context |
| Spannvorrichtungen | tensioning device | clamping devicetension or tensioning deviceStretch-forming context  |
|  Spanten | frames |  Aircraft assemblies context, automated riveting |
|  Specialisierung | specialization |  IU Nomenclature DE-EN |
|  Speiser | riser |   |
|  Spritzeinheit | injection unit |  |
|  Spritzgang | spray pass | sprayingCoatings context |
|  Spritzgusswerkzeug | injection molding tool |  injection mold |
|  Stanzen | punching | stampingSeparating (punching) context |
|  Stanztechnik | punching technologyor simply “punching” | punching techniques, stamping techniques, stamping technology |
|  starken Erweichung | severe softening |   |
|  statische und dynamische Festigkeit | static and dynamic strength |   |
|  Steiﬁgkeit | rigidity | materials context, stiffness in some other contexts |
|  Steiﬁgkeit | rigidity | stiffnesstorsion or torsional stiffness, dynamic stiffness Bonding context |
|  Stelle der ON | Classification Number (CN) Position or Position of Classification Number | = Ordnungsnummer (ON) |
|  Stempel | punch |  stampDeep-drawing context  |
|  Stereolithograﬁe | Stereolithography |  StereolithograﬁeAMP context |
|  Steuerelektrode | bias cup | bias electrode, grid cup, control electrodealso called a Wehnelt cylinder |
|  stirnseitig zusammengefügt | joined together end-to-end |  joined together face-to-face  |
|  Stoffe | materials | substances in a few contexts |
|  Stoffeigenschaftsändern | changing of material properties | changing material properties, material property modification,  |
|  stoffschlüssige Verbindung | material bond connection | positive material jointSoldering contextBonding context |
|  Strahlintensitäten | beam intensities | Laser beam Welding context |
| strahlschmelzen | beam melting | laser meltingRapid Tooling context |
| Strahlungsintervall | radiation interval |  SMS context |
|  Strang | filament | strand, line fused depostion modeling context |
| Streckgrenze | yield point | materials context |
|  Streckgrenze | yield point | linear Hooke's context  |
|  Streckziehen | stretch forming |  |
| Streckziehwerkzeuge | stretch forming tools |  |
|  Stringer | stringers | Forming technology context + Aircraft assemblies context, automated riveting |
|  Stückkosten | unit costs |  |
|  Stückzahlen | quantities |  number of units |
| Studienskript | course book |  IU Nomenclature DE-EN |
|  Stützkonstruktionen | supporting structures |  support structuresAMP context |
|  subtraktive Fertigungsverfahren | subtractive manufacturing processes |  Additive manufacturing processes context |
| subtraktive Verfahren | subtractive processes |  |
|  Tapelegemaschine | tape laying machine | Layered composites context |
| Tätigkeitszeit | Activity Time |   |
|  temperaturempﬁndlich | temperature-sensitive | Bonding context |
| teure Aufwendungen | costly expensives |  |
|  textiler Fügetechnik | textile joining technology | Layered composites context |
|  Textiltechnik | textile technology | Layered composites context   |
|  thermische Einwirkung | thermal effect |  Welding context |
|  thermische Umwandlung | thermal transformation | Riveting context See Figure 2.27 |
|  thermisches Abtragen | thermal removal |  thermal ablationMachining contextitem |
|  thermomechanischen Behandlungen | thermomechanical treatments | CMP context |
| Thermoplast(en) | thermoplastic(s) |   |
|  Thermoplast-Vorformling | thermoplastic preform |    |
|  Thursday A.M. Start Joining context P. 74 |   |   |
|  Tiefziehen | deep-drawing |  deep drawing |
|  Topfzeiten | pot life | Coatings context |
|  Torsion | torsion |  load condition context, Belastungszustände |
|  Torsionssteiﬁgkeit | torsional rigidity |  materials context, stiffness in some other contexts |
|  tragende | load-bearing |   |
| tragende Hauptstruktur | load-bearing main structure |   |
|  Trägflache | wings |  load-bearing surface |
|  Trennen | separating  |   As DIN Main Group, otherwise cutting. |
| Trennen | cutting |   |
| tröpfchenweise | as fine drops | dropwiseMulti-jet modeling context |
|  Übergang ﬂüssig/fest | liquid to solid transition | change in material state context |
| Übergeordnete Lernziele | learning objectives |  IU Nomenclature DE-EN |
|  übertragbaren Scherspannungen | transmissible shear stresses | Bonding context |
|  übertragen | transferred | transfer transferred component stresses: Riveting context Welding context |
|  Umformen | forming |  DIN Main Group  |
|  Umformverfahren | forming process |  |
|  Umweltverträglichkeit | environmental compatibility |  Riveting context |
| Unbeeinflussbare  | Non-influenceable |  Uninfluenceable also per REFA |
| Unbeeinflussbare Tätigkeitszeit | Non-Influenceable Activity Time |  Uninfluencable Activity Time also per REFA |
|  Unebenheiten | irregularities | unevenessCoatings context |
|  unlösbare Verbindung | permanent join | inseparable joint riveting context in aircraft assemblies |
|  Untergrund | base | substrate,Selective beam melting context (SLM and SEBM) context |
|  Untergruppe | subgroup |  DIN 8580 |
|  Unterkasten | Drag |  (bottom-half of molding box, not flask) |
|  unwirtschaftlich | uneconomical |   |
|  Urformen | primary shaping |  DIN Main Groupadditive manufacturing processes  |
|  Urmodell | master pattern | rapid tooling context, |
|  Vakuuminfusion | vacuum infusion |  *resin infusion* context*,* See Figure 2.10Layered composites context |
| Van-der-Waalschen-Bindung | Van der Waals bonding | Van der Waals forceBonding context |
| Veränderungsprozess | change process |  |
|  Verarbeitbarkeit | processability |   |
|  Verbindungspartner | joining partners | Fusion Welding context |
|  Verbrennung | combustion or burning | multi-jet & poly-jet modeling |
| Verbrennungskraftmaschine | internal combustion engine | Rapid Tooling context |
|  Verbundwerkstoffe | composites | composite materials |
|  Verfahren | processes |  methods |
| Verfahrensablauf | process sequence | process flow  |
| Verfahrenstechnik | process technology | process engineering |
|  Verfestigen durch Umformen | hardening by forming | CMP context |
| Verfestigung (abbau) | hardening (reduction) | strain hardeningForming technology context  |
|  Verformbarkeit | deformability | Forming technology context  |
|  Verformungszone | deformation zone |   |
| vergasbaren und schmelzbaren Modellmaterial | gasifiable and meltable pattern materials |  |
|  verkettet | interlinked |  Machining context |
|  Vermehren | increase | increasing cohesion context |
|  Vermindern | reduction | reducing cohesion context |
|  vermischen | mixed | Fusion Welding context |
|  vernetzt | crosslinked | cross-linked AMP context |
|  Vernetzung | crosslinking | cross-linkingAMP context |
|  Vernetzungsmittel | crosslinking agent | 3D printing context |
|  Vernetzungsmittel | curing agent | crosslinking agent |
|  Versprödung | embrittlement | Fusion Welding context |
|  Versprödung | embrittlement | Bonding context |
| Verteilzeit | allowance time |   |
|  Vertiefung | concentration |  IU Nomenclature DE-EN |
|  Verzug | distortion | Friction stir welding context |
|  Vollnieten | solid riveting |  Riveting context |
|  Volumenanteil | volume fraction | Machining content |
|  Volumendifferenz | volume difference |   |
| Vorablausur (VK) | Preliminary exam |  IU Nomenclature DE-EN |
|  Vorderkante | leading edge |  Layered composites context |
|  Vorgabezeit | allowed time |   |
| vorgegebenen Abmessungen | specified measurements | or specified dimensions, depending on context |
|  vorgereckte | pre-stretched | Welding context |
|  vorimprägnierte Matten | pre-impregnated mats | Layered composites context   |
|  Vorrichtungen | jigs and tools |  both terms used as a broader term, i.e., when the term *tools* is not already stated. |
| Vorrichtungen | jigs | Rapid manufacturing context |
|  Vorschubbewegung | feed motion |  feed movementFriction stir welding context |
|  Vorspannung (konstante) | prestress (constant) | preload, pretensioningRiveting context See Figure 2.27 |
|  Wahlpflichtfach | elective |  IU Nomenclature DE-EN |
| Wahlpflichtfach/Vertiefung/Specialisierung | elective/concentration/specialization |  IU Nomenclature DE-EN |
|  Walzen | rolling |   |
| wärmeaushärtende | thermosetting |  |
|  Wärmebehandlungen | heat treatments | CMP context |
|  Wärmeeintrag | heat input | Tungsten inert gas Welding context |
|  Wärmeformbeständigkeit | heat resistance | AMP context |
| Warmfestigkeit | high thermal stability | high temperature strength |
|  Warmklebstoffe | hot melt adhesive | Bonding context |
|  Warmumformung | hot forming | Forming technology context   |
| Wartezeit | Wait Time |  Waiting Time also per REFA |
|  Wege der Werkzeuge | tool paths | Riveting context |
| Weiterführende Literatur | further reading  |  IU Nomenclature DE-EN |
| weites | wide | Rapid Tooling context |
| Werkstoffe | materials |  |
|  Werkstoffkunde | materials science |   |
|  Werkstofftechnik | material technology | materials engineeringCMP context |
|  Werkstücken | workpieces |   |
|  Werkzeug | die | tool Stretch forming context |
|  Werkzeug | tool | dieDeep-drawing context |
|  werkzeuglose | tool-free |   |
|  Werkzeugmaschine | machining tool | Machining context |
|  Werkzeugmaterial | tool material | Machining context |
|  Werkzeugschneide | cutting edge | tool cutting edge  |
|  Wirkstelle  | active area | effective point heat affected zones (HAZ) infusion welding context |
| Wirtschaftlichkeit | economic efficiency |  cost-effectiveness fits better in some contexts |
| wirtschaftlichkeit | economical | cost-effective fits better in some contexts |
| Wissenschaftliche Leitung / Modulverantwoertlicher (MV) | Module Director |  IU Nomenclature DE-EN |
| Wissenskontrolle | knowledge check |  IU Nomenclature DE-EN |
|  Witterungsbeständigkeit | weather resistance | weathering resistanceAMP context |
|  Work-Factor-Methode (WF) | WF – Work Factor |   |
|  Zähigkeit | toughness |   |
| Zeit je Einheit | Time per Unit |   |
|  Zeiteinheit | Time Unit |   |
|  Zeiteinheit | time unit |   |
|  zeitliche | temporal |   |
| zeitliche Belastung | temporal load | time load |
|  Zeitspanvolumen | material removal rates |   metal removal ratesMachining context |
|  Zeitstudien | time studies |   |
|  Zerspanung | machining | Cutting context |
|  Zerspanungsmaschine | cutting machine | Machining context |
|  Zerspanungswerkzeuges | machining tool | cutting toolMachining context |
|  Zerteilen | cutting | Separating context |
|  Zerteilen | separating | Separating (punching) context |
|  Zerteilen (Stanztechnik) | separating (punching technology) |  |
| Zug | tensile |  |
|  Zug(auf Zug) | in tension | Bonding context |
| ZugdruckZugdruckumformen | tension-pressure forming | tension-pressureDeep-drawing context |
|  Zugsteifigkeit | tensile rigidity |   |
|  Zusammenhalt | cohesion  | Changing of material cohesion context |
|  Zusammenhalt schaffen | creating cohesion | Additive manufacturing processes context |
| Zusammenhänge | relationships | interrelationships, connections |
|  zusammensetzen | compounded |  Layered composites context  |
|  Zusatzdraht | filler wire | Laser beam welding context |
|  Zusatzwerkstoff | filler | weld depositSoldering context |
| zweidimensionale Kraftverteilung | two-dimensional force distribution  | two-dimensional distribution Bonding context |
|  Zwei-Komponenten-Kunststoff-Lacke | curable two-component plastic coatings | Coatings context |
|  |  |  |
|  |  |  |