

# Größenordnung (Fläche)

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Dies ist eine Zusammenstellung von Flächen verschiedener Größenordnungen zu Vergleichszwecken. Die Angaben sind oft als „typische Werte“ zu verstehen; die umgerechneten Werte sind gerundet.

Die von der Grundeinheit Meter abgeleitete Einheit der Fläche im internationalen Einheitensystem ist 1 Quadratmeter (Einheitenzeichen  $m^2$ ), das Formelzeichen  $A$ .

Weitere im folgenden verwendete Einheiten:

- 1  $mm^2$  (Quadratmillimeter) = 0,000001  $m^2$   
(1.000.000  $mm^2 = 1 m^2$ )
- 1  $cm^2$  (Quadratzentimeter) = 0,0001  $m^2$   
(10.000  $cm^2 = 1 m^2$ )
- 1 a (Ar) = 100  $m^2$
- 1 ha (Hektar) = 10.000  $m^2$
- 1  $km^2$  (Quadratkilometer) = 1.000.000  $m^2 = 100$  ha

*Siehe auch: Vorsätze für Maßeinheiten und Wissenschaftliche Notation*

## Flächen kleiner als 1 $mm^2$

- 100  $fm^2$  - 1 Barn
- 1  $nm^2$  – Sichtbarkeitsgrenze Elektronenmikroskop

1  $\mu m^2$  (Quadratmikrometer) entspricht = 1.000.000  $nm^2$  (Quadratnanometer)

- 0,05  $\mu m^2$  – Oberfläche eines Grippevirus
- 0,20  $\mu m^2$  – Sichtbarkeitsgrenze Lichtmikroskop
- 500  $\mu m^2$  – Oberfläche eines Bakteriums

1  $mm^2$  (Quadratmillimeter) entspricht = 1.000.000  $\mu m^2$  (Quadratmikrometer)

- 0,01  $mm^2$  – kleinstes mit bloßem Auge sichtbares Partikel
- 0,15  $mm^2$  – Oberfläche einer menschlichen Eizelle
- 0,196  $mm^2$  – Querschnittsfläche der Mine eines Druckbleistiftes (0,5 mm)

## 1 $mm^2$ bis 100 $mm^2$ (1 $cm^2$ )

- 1  $mm^2$  – Kästchen auf Millimeterpapier
  - 2 bis 50  $mm^2$  – Pupille eines Menschen, je nach Lichteinfall
  - 25  $mm^2$  – Kästchen auf normalkariertem Papier (5-mm-Raster)
  - 49  $mm^2$  – Kästchen auf großkariertem Papier (7-mm-Raster)
  - 55  $mm^2$  – durchschnittliches Trommelfell des Menschen (pars tensa)
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## 1 cm<sup>2</sup> bis 10 cm<sup>2</sup>

- 1,77 cm<sup>2</sup> – Mittelloch einer CD
- 2,07 cm<sup>2</sup> – 1-Eurocent-Münze
- 3,89 cm<sup>2</sup> – 20-Eurocent-Münze
- 4,25 cm<sup>2</sup> – 1-Euro-Münze
- 5,21 cm<sup>2</sup> – 2-Euro-Münze
- 6,4516 cm<sup>2</sup> = 1 square inch (Quadratzoll)

## 10 cm<sup>2</sup> bis 100 cm<sup>2</sup>

- 11,40 cm<sup>2</sup> – Mittelloch einer Single (Schallplatte/7")
- 17,50 cm<sup>2</sup> – Streichholzschachtel (50 × 35 mm)
- 46,75 cm<sup>2</sup> – normale Visitenkarte (85 × 55 mm)
- 50,27 cm<sup>2</sup> – Oberfläche eines Tischtennisballs
- 53,70 cm<sup>2</sup> – Spielkarte (Skatspiel, Normalformat)
- 74,40 cm<sup>2</sup> – 5-Euro-Banknote (120 × 62 mm)
- 77,70 cm<sup>2</sup> – Personalausweis (D – alt = vor November 2010)
- 89,92 cm<sup>2</sup> – Bierdeckel (rund, 107 mm Durchmesser)
- 97,66 cm<sup>2</sup> – Durchschnitt der menschlichen Handfläche

## 100 cm<sup>2</sup> bis 1000 cm<sup>2</sup>

- 107,80 cm<sup>2</sup> – 50-Euro-Banknote (140 × 77 mm)
- 113 cm<sup>2</sup> – Größe einer Compact Disc
- 126,68 cm<sup>2</sup> – Oberfläche eines Tennisballs
- 248,29 cm<sup>2</sup> – Single (7")
- 312,5 cm<sup>2</sup> – Blatt Papier (Format A5)
- 625 cm<sup>2</sup> – Blatt Papier (Format A4)
- 729 cm<sup>2</sup> – Langspielplatte
- 910 cm<sup>2</sup> – Bildfläche eines 17-Zoll-Computermonitors (errechneter Wert bei einer Bildschirmdiagonale von 17 Zoll [entspricht 43,18 cm] und einem Seitenverhältnis von 5:4)
- 929,0304 cm<sup>2</sup> = 1 square foot (Quadratfuß)

## 1000 cm<sup>2</sup> bis 10.000 cm<sup>2</sup> (1 m<sup>2</sup>)

- 1090 cm<sup>2</sup> – Oberfläche eines Handballs
  - 1250 cm<sup>2</sup> – Bogen Papier (Format A3)
  - 1403,4 cm<sup>2</sup> – Bildfläche eines 22-Zoll-Computermonitors (errechneter Wert bei einer Bildschirmdiagonale von 22 Zoll [entspricht 55,88 cm] und einem Seitenverhältnis von 16:10)
  - 1560 cm<sup>2</sup> – Oberfläche eines Fußballs
  - 2500 cm<sup>2</sup> – Bogen Papier (Format A2)
  - 2827 cm<sup>2</sup> – Oberfläche eines Globus Ø 30 cm
  - 4070 cm<sup>2</sup> – "Mona Lisa" von Leonardo da Vinci
  - 5000 cm<sup>2</sup> – Bogen Papier (Format A1)
  - 6270 cm<sup>2</sup> – abgerollte Tesafilmrolle (19 mm × 33 m)
  - 8361,2736 cm<sup>2</sup> = 1 square yard
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**1 m<sup>2</sup> bis 10 m<sup>2</sup>**

- 1 m<sup>2</sup> – DIN-A-0-Blatt, 841 mm × 1189 mm, das Seitenverhältnis beträgt  $1 : \sqrt{2}$
- 1,5 bis 2 m<sup>2</sup> – Hautoberfläche des erwachsenen Menschen
- 2,23 m<sup>2</sup> – Eishockeytor
- 3,5 m<sup>2</sup> – Papier einer Klopapierrolle (10 cm × 14 cm × 250 Blatt)
- 4,16 m<sup>2</sup> – Tischtennistisch
- 6 m<sup>2</sup> – Handballtor
- 9 m<sup>2</sup> – typischer Gartenpavillon (3 m × 3 m)

**10 m<sup>2</sup> bis 100 m<sup>2</sup> (1 a)**

- 12,5 m<sup>2</sup> – Autostellplatz (5,0 m × 2,5 m)
- 17,86 m<sup>2</sup> – Fußballtor (7,32 m × 2,44 m)
- 37,16 m<sup>2</sup> – Boxring
- 25 bis 80 m<sup>2</sup> – typischer Wohnraum einer kleinen Stadtwohnung
- 81,74 m<sup>2</sup> – Badminton-Spielfeld

**100 m<sup>2</sup> (1 a) bis 1000 m<sup>2</sup> (10 a)**

- 100,76 m<sup>2</sup> – Fläche des Torraums (Fußball)
- 123 m<sup>2</sup> – Tragfläche des Airbus A-320
- 162 m<sup>2</sup> – Volleyball-Spielfeld
- 260 m<sup>2</sup> – Tennisplatz
- 420 m<sup>2</sup> – Basketballfeld
- 525 m<sup>2</sup> – Flügelfläche des Jumbo-Jet (Boeing 747-400)

**1000 m<sup>2</sup> bis 10.000 m<sup>2</sup> (1 ha)**

- 1134 m<sup>2</sup> – Grundfläche der Reichstagskuppel (d = 38,0 m)
- 1722 m<sup>2</sup> – Bauernkriegspanorama von Werner Tübke, drittgrößtes Ölgemälde der Welt
- 1800 m<sup>2</sup> – Eishockey-Spielfeld
- 4000 m<sup>2</sup> – Grundfläche der Alten Oper in Frankfurt/Main
- 4046,8564224 m<sup>2</sup> = 1 acre
- 7140 m<sup>2</sup> - Fläche eines Fußballfelds (FIFA-Norm)
- 7914 m<sup>2</sup> – überbaute Fläche des Kölner Doms<sup>[1]</sup>

**10.000 m<sup>2</sup> (1 ha) bis 100.000 m<sup>2</sup> (10 ha)**

- 1,09 ha – Grundfläche der Bahnsteigshalle des Hamburger Hauptbahnhofs (nur Hauptspannweite 73 m × 150 m)
- 1,90 ha – Denkmal für die ermordeten Juden Europas in Berlin
- 2,00 ha – Innenhof des Pentagon
- 2,68 ha – Passagierdecks der RMS Queen Mary II
- 3,96 ha – Flughafen Berlin Brandenburg: Hauptterminal
- 4,86 ha – Fläche eines Polofeldes
- 5,29 ha – Grundfläche der Cheops-Pyramide
- 6,30 ha – Bürofläche des Frankfurter Messeturms
- 8,36 ha – Grundfläche des Leipziger Hauptbahnhofs

**100.000 m<sup>2</sup> (10 ha) bis 1 km<sup>2</sup> (100 ha)**

- 11 ha – Stadt Rattenberg in Tirol, flächenmäßig kleinste Gemeinde Österreichs
- 12 ha – Grundfläche des Pentagon
- 32 ha – Kaiserstuhl AG und Rivaz VD, flächenmäßig kleinste Gemeinden der Schweiz
- 40 ha – Platz des himmlischen Friedens, Peking, China
- 44 ha – Vatikanstadt, kleinster Staat der Erde
- 45 ha – Insel Mainau, Bodensee
- 50 ha – Hallenfläche auf dem Messegelände Hannover
- 58 ha – Märzfeld auf dem Nürnberger Reichsparteitagsgelände
- 97 ha – Colonia Claudia Ara Agrippinensium, das römische Köln

**1 km<sup>2</sup> (100 ha) bis 10 km<sup>2</sup> (1000 ha)**

- 1,36 km<sup>2</sup> – Bürgerpark, Bremen
- 1,70 km<sup>2</sup> – Helgoland (nur Hauptinsel)
- 2,02 km<sup>2</sup> – Monaco
- 2,589988110336 km<sup>2</sup> = 1 square mile (Quadratmeile)
- 2,73 km<sup>2</sup> – Wannsee, Berlin
- 3,40 km<sup>2</sup> – Central Park, New York City
- 6,50 km<sup>2</sup> – Gibraltar
- 8,93 km<sup>2</sup> – Tegernsee, Bayern

**10 km<sup>2</sup> bis 100 km<sup>2</sup>**

- 10,8 km<sup>2</sup> – Ossiacher See, Kärnten
- 13,3 km<sup>2</sup> – Millstätter See, Kärnten
- 19,0 km<sup>2</sup> – Hiddensee, deutsche Ostseeinsel
- 21,3 km<sup>2</sup> – Republik Nauru, Ozeanien
- 24,4 km<sup>2</sup> – Traunsee, Salzkammergut/Österreich
- 30,7 km<sup>2</sup> – Borkum, ostfriesische Insel
- 46,2 km<sup>2</sup> – Attersee, Salzkammergut/Österreich
- 59,5 km<sup>2</sup> – Manhattan, New York City
- 79,9 km<sup>2</sup> – Chiemsee, Bayern
- 99,1 km<sup>2</sup> – Sylt, nordfriesische Insel

**100 km<sup>2</sup> bis 1000 km<sup>2</sup>**

- 105 km<sup>2</sup> – Paris (Stadtgebiet)
  - 118 km<sup>2</sup> – Aletschgletscher, Schweiz
  - 160 km<sup>2</sup> – Liechtenstein
  - 246 km<sup>2</sup> – Insel Malta (ohne Nebeninseln)
  - 360 km<sup>2</sup> – Gazastreifen
  - 415 km<sup>2</sup> – Wien, kleinstes Bundesland Österreichs
  - 419 km<sup>2</sup> – Freie Hansestadt Bremen, kleinstes Bundesland Deutschlands
  - 430 km<sup>2</sup> – Glarus Süd (flächengrößte Gemeinde der Schweiz)
  - 467 km<sup>2</sup> – Sölden (flächengrößte Gemeinde Österreichs)
  - 536 km<sup>2</sup> – Bodensee, Deutschland/Österreich/Schweiz
  - 572 km<sup>2</sup> – Isle of Man
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- 622 km<sup>2</sup> – Tokio, Japan
- 755 km<sup>2</sup> – Hamburg, Zweitgrößte Stadt Deutschlands
- 789 km<sup>2</sup> – New York City, Vereinigte Staaten (Landfläche)
- 892 km<sup>2</sup> – Berlin (flächengrößte Gemeinde Deutschlands)
- 926 km<sup>2</sup> – Rügen, Insel (Ostsee)

### **1000 km<sup>2</sup> bis 10.000 km<sup>2</sup>**

- 1085 km<sup>2</sup> – Drei-Schluchten-Stausee, China
- 1290 km<sup>2</sup> – Los Angeles, USA
- 1572 km<sup>2</sup> – Greater London, Vereinigtes Königreich
- 2034 km<sup>2</sup> – Teneriffa
- 2510 km<sup>2</sup> – Moskau, Russland
- 2766 km<sup>2</sup> – Manitoulin, größte Insel in einem Süßwassersee
- 2985 km<sup>2</sup> – Fünen, eine Insel Dänemarks
- 3081 km<sup>2</sup> – Yosemite-Nationalpark, Nationalpark in den Vereinigten Staaten
- 3604 km<sup>2</sup> – Mallorca
- 5468 km<sup>2</sup> – Landkreis Mecklenburgische Seenplatte (größter Landkreis Deutschlands)
- 5648 km<sup>2</sup> – Vänernersee, Schweden
- 6242 km<sup>2</sup> – Palästinensische Autonomiegebiete
- 7105 km<sup>2</sup> – Graubünden (größter Kanton der Schweiz)
- 7400 km<sup>2</sup> – Südtirol
- 8680 km<sup>2</sup> – Korsika
- 9251 km<sup>2</sup> – Zypern

### **10.000 km<sup>2</sup> bis 100.000 km<sup>2</sup>**

- 10.433 km<sup>2</sup> – Hawai'i (Insel)
  - 13.843 km<sup>2</sup> – Nordirland (Landesteil des Vereinigten Königreichs)
  - 19.186 km<sup>2</sup> – Niederösterreich (flächengrößtes Bundesland Österreichs)
  - 20.000 km<sup>2</sup> – Krüger-Nationalpark (Südafrika)
  - 30.528 km<sup>2</sup> – Belgien
  - 31.492 km<sup>2</sup> – Baikalsee
  - 41.285 km<sup>2</sup> – Schweiz
  - 56.542 km<sup>2</sup> – Kroatien
  - 70.552 km<sup>2</sup> – Bayern (flächengrößtes Bundesland Deutschlands)
  - 82.103 km<sup>2</sup> – Oberer See (flächengrößter Süßwassersee der Erde)
  - 83.879 km<sup>2</sup> – Österreich
  - 84.421 km<sup>2</sup> – Irland (drittgrößte Insel Europas)
  - 90.000 km<sup>2</sup> – Weißes Meer
  - 99.392 km<sup>2</sup> – Südkorea
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**100.000 km<sup>2</sup> bis 1.000.000 km<sup>2</sup>**

- 103.125 km<sup>2</sup> – Island
- 219.331 km<sup>2</sup> – Großbritannien (größte Insel Europas)
- 230.000 km<sup>2</sup> – Great Barrier Reef
- 312.678 km<sup>2</sup> – Polen
- 357.111 km<sup>2</sup> – Deutschland
- 413.000 km<sup>2</sup> – Ostsee
- 575.000 km<sup>2</sup> – Nordsee
- 678.051 km<sup>2</sup> – Texas
- 783.562 km<sup>2</sup> – Türkei
- 923.768 km<sup>2</sup> – Nigeria

**1.000.000 km<sup>2</sup> bis 10.000.000 km<sup>2</sup>**

- 1.001.449 km<sup>2</sup> – Ägypten
- 1.481.346 km<sup>2</sup> – Alaska
- 2.166.086 km<sup>2</sup> – Grönland
- 3.287.590 km<sup>2</sup> – Indien
- 4.324.782 km<sup>2</sup> – Europäische Union
- 7.692.030 km<sup>2</sup> – Australien
- 8.514.215 km<sup>2</sup> – Brasilien
- 9.571.302 km<sup>2</sup> – China
- 9.638.050 km<sup>2</sup> – USA mit Puerto Rico
- 9.984.670 km<sup>2</sup> – Kanada

**10 Millionen km<sup>2</sup> bis 100 Millionen km<sup>2</sup>**

- 10,18 Millionen km<sup>2</sup> – Europa (Kontinent)
  - 13,20 Millionen km<sup>2</sup> – Antarktis (Kontinent)
  - 14,09 Millionen km<sup>2</sup> – Arktischer Ozean
  - 17,08 Millionen km<sup>2</sup> – Russland (größter Staat der Erde)
  - 17,84 Millionen km<sup>2</sup> – Südamerika
  - 17,95 Millionen km<sup>2</sup> – Oberfläche des Pluto
  - 23,02 Millionen km<sup>2</sup> – Oberfläche des Triton, größter Neptunmond
  - 24,93 Millionen km<sup>2</sup> – Nordamerika
  - 30,30 Millionen km<sup>2</sup> – Afrika
  - 37,93 Millionen km<sup>2</sup> – Oberfläche des Mondes
  - 44,61 Millionen km<sup>2</sup> – Asien
  - 73,43 Millionen km<sup>2</sup> – Indischer Ozean (ohne Nebenmeere)
  - 74,76 Millionen km<sup>2</sup> – Oberfläche des Merkur
  - 82,40 Millionen km<sup>2</sup> – Atlantischer Ozean (ohne Nebenmeere)
  - 83,32 Millionen km<sup>2</sup> – Oberfläche des Titan, größter Saturnmond
  - 85,00 Millionen km<sup>2</sup> – Afrika-Eurasien (größte zusammenhängende Landmasse der Erde)
  - 87,18 Millionen km<sup>2</sup> – Oberfläche des Ganymed, größter Mond des Sonnensystems
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## 100 Millionen km<sup>2</sup> bis 1 Milliarde km<sup>2</sup>

- 144,6 Millionen km<sup>2</sup> – Oberfläche des Mars
- 149,0 Millionen km<sup>2</sup> – Landfläche der Erde
- 166,2 Millionen km<sup>2</sup> – Pazifischer Ozean (ohne Nebenmeere)
- 361,1 Millionen km<sup>2</sup> – Wasserfläche der Erde
- 460,2 Millionen km<sup>2</sup> – Oberfläche der Venus
- 510,1 Millionen km<sup>2</sup> – Oberfläche der Erde

## 1 Milliarde km<sup>2</sup> bis 10 Milliarden km<sup>2</sup>

- 7,620 Milliarden km<sup>2</sup> – Oberfläche des Neptun
- 8,083 Milliarden km<sup>2</sup> – Oberfläche des Uranus

## 10 Milliarden km<sup>2</sup> bis 100 Milliarden km<sup>2</sup>

- 42,61 Milliarden km<sup>2</sup> – Oberfläche des Saturn
- 61,42 Milliarden km<sup>2</sup> – Oberfläche des Jupiter

## 100 Milliarden km<sup>2</sup> bis 1 Billion km<sup>2</sup>

- 463,2 Milliarden km<sup>2</sup> – Fläche der Scheibe, die durch die Umlaufbahn des Mondes um die Erde gebildet wird

## Größere Flächen als 1 Billion km<sup>2</sup>

- 6,087 Billionen km<sup>2</sup> ( $6,09 \cdot 10^{18}$  m<sup>2</sup>) – Oberfläche der Sonne
- 70,31 Billionen km<sup>2</sup> ( $7,03 \cdot 10^{22}$  m<sup>2</sup>) – Fläche der Scheibe, die durch die Umlaufbahn der Erde um die Sonne gebildet wird
- 108,2 Trillionen km<sup>2</sup> ( $1,09 \cdot 10^{26}$  m<sup>2</sup>) – Fläche der Scheibe, die durch die Umlaufbahn des Pluto um die Sonne gebildet wird

## Einzelnachweise

[1] Maße und Zahlen (<http://www.koelner-dom.de/interessantes.html>), koelner-dom.de

## Weblinks

- Interaktive Veranschaulichung von Ansichten der Welt in verschiedenen Distanzen (<http://micro.magnet.fsu.edu/primer/java/scienceopticsu/powersof10/>) (englisch)
- areacompare.com (<http://areacompare.com>) Vergleich geografischer Flächen

# Quelle(n) und Bearbeiter des/der Artikel(s)

**Größenordnung (Fläche)** *Quelle:* <http://de.wikipedia.org/w/index.php?oldid=131388813> *Bearbeiter:* 4tilden, Adobar, Adriaurlauber, Adtmuc, Aka, Albe ni, Alex42, Alfie66, Alnilam, Altsprachenfreund, Andreas 06, Andrest, Andy king50, Arcimboldo, Ares8, Asgar, Bangin, Basti1403, Berreu, BishkekRocks, Bond127, Boobarkee, CdaMVvWgS, Cepheiden, Cethegus, Chemiewikibm, Christian1985, ChristianBier, Churchymayer, CiciBeilken, Clemensfranz, Cryptowik, Cybernico, Cymothoa exigua, DF5GO, Daniel 1992, Daniel FR, DasOrm, DerGraueWolf, Diba, Drachentoeter, Dufo, ENight, Ephraim33, Ercas, Exsylvor, Exxu, Florian.Keffler, FlorianP, Foundert, Fristu, Futschigama, GDSsystem.de, Giftmischer, Graphikus, Griensteidl, Gugganij, Gummimann, Gunther, HaSee, Harry8, HeSnry, Horst Gräbner, Howwi, Hydro, Ingocourt, Invisigoth67, Iste Praetor, JCS, JackInTheBox82, Jarlhelm, Jivee Blau, Jossi2, JuTa, Jwnabd, Jón, Kein Einstein, Kenji, Klaus Münster, Kontrollstellekundl, Krawi, Kwerdenker, König Alfons der Viertelvorzwölffe, LZ6387, Levonk, Liliana-60, Made in Yugoslavia, Malteser.de, Man77, Mannerheim, Martin1978, Martinwilke1980, Maruschka, Matthiasb, Mauro60, Maxder2te, McFred, Meister-Lampe, Melkom, Mfb, Mglode, Mikmaq, Milad A380, Mr.McLeod, MrBurns, MyBenutzername, Newman, Ninjamask, Nirakka, Olei, Ottomanisch, P. Birken, Paul Henning, Peter200, Pfeffer Latsch, Pittimann, Plenz, Port(u\*)s, Quartl, Querverplänkler, Randolph33, Rax, Regi51, Ri st, Rivi, Robert Kropf, RokerHRO, SchirmerPower, Schofför, Schreibschaf, SchwarzerKater(BLN), Sdo, Seestaernli, Septembermorgen, Sidifferent, Sinn, Sneecs, Spandajerry, Spuk968, SteEis., Steffen, Steffen Löwe Gera, Stern, Stranger37, Suirenn, Suppenbrezel, Surtalnar, Sven-steffen arndt, Sypholux, Tafkas, Taschna, TheK, TheRunnerUp, Thire, Timk70, Tobias1983, Triebtäter, Ulkomaalaine, Umweltschützen, Unscheinbar, VanGore, Variona, WAH, Wahrig2003, Weiacher Geschichte(n), WiEsi, Wiebketru, Wiegels, Wiglef, William Wiltshire, Wkrautter, Wolfgangbeyer, Wunderkerbe, Yahp, Zapane, Zeuke, Zulu55, 371 anonyme Bearbeitungen

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