

27, 30, 33 are commonly used, please disregard the rest Chinese Characters.

具体 12—45 中的哪个，需要指定

最常用 27、30、33 这三个号。

如果产品不大，可以用火花是可以做到。

但产品大了，直接打火花，不容易做出均匀的纹。

打完火花，抛光后再腐蚀纹。



Ra 值对应表

| Nr. | Ra(μm) |
|-----|--------|
| 12 | 0,40 |
| 15 | 0,56 |
| 18 | 0,80 |
| 21 | 1,12 |
| 24 | 1,60 |
| 27 | 2,24 |
| 30 | 3,15 |
| 33 | 4,50 |
| 36 | 6,30 |
| 39 | 9,00 |
| 42 | 12,5 |
| 45 | 18,0 |

According to a (German) Document the VDI surfaces correspond to the following Ra / Rz Values and require the following drafting angles:

| VDI; | Ra; | Rz; | DA-PA; | DA-PC; | DA-ABS |
|------|--------|-------|--------|--------|--------|
| 12; | 0,40; | 1,5; | 0; | 1,0; | 0,5 |
| 15; | 0,56; | 2,4; | 0,5; | 1,0; | 0,5 |
| 18; | 0,80; | 3,3; | 0,5; | 1,0; | 0,5 |
| 21; | 1,12; | 4,7; | 0,5; | 1,0; | 0,5 |
| 24; | 1,60; | 6,5; | 0,5; | 1,5; | 1,0 |
| 27; | 2,24; | 10,5; | 1,0; | 2,0; | 1,5 |
| 30; | 3,15; | 12,5; | 1,5; | 2,0; | 2,0 |
| 33; | 4,50; | 17,5; | 2,0; | 3,0; | 2,5 |
| 36; | 6,30; | 24,0; | 2,5; | 4,0; | 3,0 |
| 39; | 9,00; | 34,0; | 3,0; | 5,0; | 4,0 |
| 42; | 12,50; | 48,0; | 4,0; | 6,0; | 5,0 |
| 45; | 18,00; | 69,0; | 5,0; | 7,0 | |

DA-PA = Drafting Angle for Polyamide

DA-PC = Drafting Angle for Polycarbonate

DA-ABS = Drafting Angle for Acrylnitrile-Butadiene-Styrol

glass reinforced materials require more drafting

CHARMILLS 火花纹 (VDI 3400标准)

CHARMILLS 火花纹数据 (VDI 3400标准)

光洁度对照表

| 火花电蚀的光洁度表 | | | | VDI 3400 | Ra | | classes | | | | |
|-----------|---------------------|--------------------|---------------------|----------|---------------|----------------|--------------------|----|------|------|-----|
| MDC | | VDI3400 (HASCO) | | CHNo. | μm | μin | ISO 1302 (1992) | | | | |
| Grade | Ra(μm) | Grade | Ra(μm) | | | | | | | | |
| B1 | | 0 | 0.10 | 0 | 0.10 | 4 | N3 | 21 | 1.12 | 44.8 | |
| B2 | | 3 | 0.15 | 1 | 0.11 | 4.4 | | 22 | 1.26 | 50.4 | |
| | | 6 | 0.20 | 2 | 0.12 | 4.8 | | 23 | 1.40 | 56 | |
| B3 | | 9 | 0.30 | 3 | 0.14 | 5.6 | | 24 | 1.62 | 63 | |
| E1 | 0.45 | 12 | 0.40 | 4 | 0.16 | 6.4 | | 25 | 1.80 | 72 | N7 |
| E2 | 0.60 | 15 | 0.55 | 5 | 0.18 | 7.2 | N4 | 26 | 2.00 | 80 | |
| E3 | 0.80 | 18 | 0.80 | 6 | 0.20 | 8 | | 27 | 2.2 | 88 | |
| | | 21 | 1.10 | 7 | 0.22 | 8.8 | | 28 | 2.5 | 100 | |
| E4 | 1.50 | 24 | 1.60 | 8 | 0.25 | 10 | | 29 | 2.8 | 112 | |
| | | 27 | 2.20 | 9 | 0.28 | 11.2 | | 30 | 3.2 | 125 | N8 |
| E5 | 3.00 | 30 | 3.20 | 10 | 0.32 | 12.8 | | 31 | 3.5 | 140 | |
| E6 | 4.00 | 33 | 4.50 | 11 | 0.35 | 14 | N5 | 32 | 4.0 | 160 | |
| E7 | 5.50 | 36 | 6.30 | 12 | 0.40 | 16 | | 33 | 4.5 | 180 | |
| E8 | 8.00 | | | 13 | 0.45 | 18 | | 34 | 5.0 | 200 | |
| E9 | 9.50 | 39 | 9.00 | 14 | 0.50 | 20 | | 35 | 5.6 | 224 | |
| E10 | 12.00 | 42 | 12.50 | 15 | 0.56 | 22.4 | | 36 | 6.3 | 250 | N9 |
| E11 | 15.00 | | | 16 | 0.63 | 25.2 | | 37 | 7 | 280 | |
| E12 | 18.00 | 45 | 18.00 | 17 | 0.70 | 28 | | 38 | 8 | 320 | |
| | | | | 18 | 0.80 | 32 | N6 | 39 | 9 | 360 | |
| | | | | 19 | 0.90 | 36 | | 40 | 10 | 400 | |
| | | | | 20 | 1.00 | 40 | | 41 | 11.2 | 448 | |
| | | | | | | | | 42 | 12.6 | 500 | N10 |
| | | | | | | | | 43 | 14 | 560 | |
| | | | | | | | | 44 | 16 | 640 | |
| | | | | | | | | 45 | 18 | 760 | |