

01 p1 1-0-0
Translations only


## 04 pg 1-0-1

Glide reflections in one direction


## 07 pmg 2-1-1

Flips and glide reflections with perpendicular axes; half-turns on glide axes


02 p2 2-0-0+ Half-turns


## 05 cm 1-1-1

Flips and glide reflections in one direction, with parallel axes


08 pgg 2-0-2+
Glide reflections in two directions; half-turns off axes


03 pm 1-1-0
Flips in one direction


06 pmm 2-2-0
Flips in two directions; half-turns where axes cross


09 cmm 2-2-2
Flips and glide reflections in two directions; half-turns where like axes cross


10 p4 4-0-0+
Half-turns and quarter-turns


Third-turns


16 p6 6-0-0+
Half-turns, third-turns, and sixth-turns


11 p4m 4-4-0
Flips in four directions; half-turns and quarter-turns


14 p31m 3-3-3+
Flips and glide reflections in three directions; third-turns on and off axes


## 17 p6m 6-6-6

Flips and glide reflections in six directions; half-turns, third-turns, and sixth-turns


12 p4g 4-2-2
Flips and glide reflections in two directions; half-turns and quarter-turns


15 p3m1 3-3-3

Flips and glide reflections in three directions; third-turns on flip axes crossings

## 14

Pattern number

## p31m

IUC notation

## 3-3-3+

Rotational order, number of flip directions, number of glide directions, + if there are rotations not centered on flip or glide axes

