

## Dortmunder II

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- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **27**
- SRM **3.9**
- Style **Dortmunder Export**

### Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.4 liter(s)**

### Steps

- Temp **64 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

### Mash step by step

- Heat up **18.3 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **30 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **22 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński                 | 5.5 kg (90.2%) | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 0.5 kg (8.2%)  | 79 %  | 16  |
| Grain | Zakwaszajacy               | 0.1 kg (1.6%)  | 79 %  | 5   |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 35 g   | 60 min | 8.5 %      |
| Boil    | Perle   | 10 g   | 10 min | 4.4 %      |
| Boil    | Perle   | 20 g   | 0 min  | 4.4 %      |

### Yeasts

| Name                 | Type  | Form   | Amount | Laboratory       |
|----------------------|-------|--------|--------|------------------|
| FM31 Bawarska Dolina | Lager | Liquid | 216 ml | Fermentum Mobile |

### Notes

- 4 pokolenie gestwa z lodowki (1 tydzien) po german pils  
*Feb 8, 2019, 9:11 PM*