

Dortmunder

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **61**
- SRM **4.4**
- Style **Dortmunder Export**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **27 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17.1 liter(s)**
- Total mash volume **22 liter(s)**

Steps

- Temp **50 C**, Time **20 min**
- Temp **67 C**, Time **50 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **17.1 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **50 min** at **67C**
- Keep mash **5 min** at **78C**
- Sparge using **14.8 liter(s)** of **76C** water or to achieve **27 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3.7 kg (75.5%)	81 %	4
Grain	Monachijski typ II 20-25 EBC Weyermann	0.6 kg (12.2%)	80 %	20
Grain	Weyermann - Carapils	0.6 kg (12.2%)	78 %	4

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Herkules	30 g	60 min	17 %
Boil	Mount Hood	10 g	20 min	5.5 %
Aroma (end of boil)	Mount Hood	20 g	5 min	5.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
Saflager S-23	Lager	Dry	11.5 g	Fermentis