

# Dortmunder

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **22**
- SRM **4.6**
- 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 **2.5 liter(s) / kg**
- Mash size **16.3 liter(s)**
- Total mash volume **22.8 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **20 min**

## Mash step by step

- Heat up **16.3 liter(s)** of strike water to **62C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **20 min** at **64C**
- Keep mash **20 min** at **72C**
- Sparge using **24.4 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	5.5 kg (84.6%)	80 %	4
Grain	Monachijski	0.5 kg (7.7%)	80 %	16
Grain	Strzegom Monachijski typ II	0.5 kg (7.7%)	79 %	22

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	20 g	60 min	13.5 %
Boil	Premiant	20 g	0 min	8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM31 Bawarska Dolina	Lager	Liquid	200 ml	Fermentum Mobile