

# Dortmunder

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **31**
- SRM **4.5**
- 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 **90 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

## Steps

- Temp **55 C**, Time **10 min**
- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **15 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **20 min** at **64C**
- Keep mash **40 min** at **72C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	4.5 kg (90%)	80 %	4
Grain	Strzegom Monachijski typ II	0.5 kg (10%)	79 %	22

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	17 g	60 min	13.5 %
Boil	Hallertau Mittelfruh	15 g	30 min	3 %
Boil	Hallertau Mittelfruh	15 g	15 min	3 %
Aroma (end of boil)	Hallertau Mittelfruh	20 g	0 min	3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Saflager W 34/70	Lager	Slant	250 ml	Fermentis