

# Dortmunder

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **49**
- SRM **4.6**
- Style **Dortmunder Export**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **26.5 liter(s)**

## Steps

- Temp **50 C**, Time **20 min**
- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **20.6 liter(s)** of strike water to **54.3C**
- Add grains
- Keep mash **20 min** at **50C**
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13.1 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                                         | Amount         | Yield | EBC |
|-------|----------------------------------------------|----------------|-------|-----|
| Grain | Słód Pilsner®<br>2,5-4,5 EBC<br>Weyermann    | 3.7 kg (62.7%) | 80 %  | 4   |
| Grain | Monachijski typ II<br>20-25 EBC<br>Weyermann | 0.6 kg (10.2%) | 80 %  | 20  |
| Grain | Weyermann -<br>Carapils                      | 0.6 kg (10.2%) | 78 %  | 4   |
| Grain | Pilzneński                                   | 1 kg (16.9%)   | 81 %  | 4   |

## Hops

| Use for | Name                      | Amount | Time   | Alpha acid |
|---------|---------------------------|--------|--------|------------|
| Boil    | Magnum                    | 30 g   | 60 min | 15.5 %     |
| Boil    | Hallertau Spalt<br>Select | 10 g   | 20 min | 3.9 %      |
| Boil    | Hallertau Spalt<br>Select | 20 g   | 5 min  | 3.9 %      |

## Yeasts

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