

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 |