

Dortmunder Export

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **28**
- SRM **4**
- Style **Dortmunder Export**

Batch size

- Expected quantity of finished beer **38 liter(s)**
- Trub loss **5 %**
- Size with trub loss **40.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **8 %/h**
- Boil size **47.6 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **25.5 liter(s)**
- Total mash volume **34 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 **25.5 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 **30.6 liter(s)** of **76C** water or to achieve **47.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński | 7.5 kg (88.2%) | 80 % | 4 |
| Grain | Strzegom Monachijski typ I | 1 kg (11.8%) | 79 % | 16 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-----------------------|--------|--------|------------|
| Boil | Magnum | 30 g | 60 min | 10.5 % |
| Boil | Hellertauer Tradition | 30 g | 30 min | 3.8 % |
| Boil | Hellertauer Tradition | 30 g | 15 min | 3.8 % |
| Aroma (end of boil) | Hellertauer Tradition | 40 g | 0 min | 3.8 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------------------------|-------|--------|--------|------------------|
| FM30 Bohemska rapsodia | Lager | Liquid | 50 ml | Fermentum Mobile |