

Robust Porter

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **35**
- SRM **30.6**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **16 liter(s)**
- Trub loss **5 %**
- Size with trub loss **16.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **20.9 liter(s)**

Mash information

- Mash efficiency **77 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.8 liter(s)**
- Total mash volume **18.4 liter(s)**

Steps

- Temp **66 C**, Time **75 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **13.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **11.7 liter(s)** of **76C** water or to achieve **20.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-------------------|----------------|-------|------|
| Grain | Pilzneński | 4 kg (87%) | 81 % | 4 |
| Grain | Caraaroma | 0.25 kg (5.4%) | 78 % | 400 |
| Grain | Jęczmień palony | 0.1 kg (2.2%) | 55 % | 985 |
| Grain | carafa special II | 0.25 kg (5.4%) | 50 % | 1100 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Marynka | 20 g | 60 min | 10 % |
| Boil | Liberty | 15 g | 30 min | 4.5 % |
| Boil | Liberty | 15 g | 10 min | 4.5 % |