

# Robust Porter

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **31**
- SRM **30.5**
- Style **Robust Porter**

## Batch size

- Expected quantity of finished beer **55 liter(s)**
- Trub loss **5 %**
- Size with trub loss **59.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **68.3 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **43.4 liter(s)**
- Total mash volume **57.8 liter(s)**

## Steps

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

## Mash step by step

- Heat up **43.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **66C**
- Keep mash **10 min** at **76C**
- Sparge using **39.4 liter(s)** of **76C** water or to achieve **68.3 liter(s)** of wort

## Fermentables

| Type  | Name              | Amount          | Yield | EBC  |
|-------|-------------------|-----------------|-------|------|
| Grain | Pilznieński       | 12.5 kg (86.5%) | 81 %  | 4    |
| Grain | Caraaroma         | 0.8 kg (5.5%)   | 78 %  | 400  |
| Grain | Jęczmień palony   | 0.35 kg (2.4%)  | 55 %  | 985  |
| Grain | carafa special II | 0.8 kg (5.5%)   | 50 %  | 1100 |

## Hops

| Use for | Name                   | Amount | Time   | Alpha acid |
|---------|------------------------|--------|--------|------------|
| Boil    | Marynka                | 60 g   | 60 min | 10 %       |
| Boil    | Hallertau Spalt Select | 50 g   | 30 min | 3.6 %      |
| Boil    | Hallertau Spalt Select | 50 g   | 10 min | 3.6 %      |

## Yeasts

| Name        | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale  | Dry  | 34.5 g | ---        |