

Porter

- Gravity **15.9 BLG**
- ABV **6.7 %**
- IBU **24**
- SRM **47.5**
- Style **Robust Porter**

Batch size

- Expected quantity of finished beer **26 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **35.9 liter(s)**

Mash information

- Mash efficiency **60 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **0 min**

Mash step by step

- Heat up **22.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Keep mash **0 min** at **78C**
- Sparge using **20.9 liter(s)** of **76C** water or to achieve **35.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|-----------------------------|----------------|--------|-----|
| Grain | Wiedeński | 3 kg (32.6%) | 79 % | 6 |
| Grain | Monachijski | 2 kg (21.7%) | 80 % | 16 |
| Grain | Pilzneński | 1 kg (10.9%) | 81 % | 4 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (5.4%) | 75 % | 30 |
| Grain | Caraaroma | 0.5 kg (5.4%) | 78 % | 400 |
| Grain | Biscuit Malt | 0.3 kg (3.3%) | 77 % | 50 |
| Grain | Special B Malt | 0.2 kg (2.2%) | 65.2 % | 300 |
| Liquid Extract | ekstrakt słodowy ciemny WES | 1.7 kg (18.5%) | 90 % | 700 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Marynka | 30 g | 60 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 30 g | 10 min | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|---------------|-------|-----|------|---------------------------------------|
| Saflager S-23 | Lager | Dry | 23 g | Fermentis Division of S.I.Lesaffre |
|---------------|-------|-----|------|---------------------------------------|