

Polskie Ale z Końcówek

- Gravity **11 BLG**
- ABV ---
- IBU **30**
- SRM **3.3**
- Style **Special/Best/Premium Bitter**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **27.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15 liter(s)**
- Total mash volume **20 liter(s)**

Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **15 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **21.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------|--------------|-------|-----|
| Grain | Pszoniczny | 1.7 kg (34%) | 85 % | 4 |
| Grain | Strzegom Pilzneński | 2.8 kg (56%) | 80 % | 4 |
| Grain | Optima Karmel 8 | 0.5 kg (10%) | 80 % | 8 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Magnum | 20 g | 60 min | 12.5 % |
| Boil | Lublin (Lubelski) | 25 g | 20 min | 3.5 % |
| Aroma (end of boil) | Lublin (Lubelski) | 25 g | 5 min | 3.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 150 ml | Fermentis |

Extras

| Type | Name | Amount | Use for | Time |
|--------|----------------|--------|---------|--------|
| Fining | Mech Irlandzki | 10 g | Boil | 10 min |