

Złe polskie ale

- Gravity **13.8 BLG**
- ABV **5.7 %**
- IBU **29**
- SRM **6.2**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 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 **4 liter(s) / kg**
- Mash size **20 liter(s)**
- Total mash volume **25 liter(s)**

Steps

- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **3 min**

Mash step by step

- Heat up **20 liter(s)** of strike water to **71.8C**
- Add grains
- Keep mash **50 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **3 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|----------------|----------------------------|--------------|-------|-----|
| Grain | Viking Pilsner malt | 5 kg (83.3%) | 82 % | 4 |
| Liquid Extract | WES ekstrakt słodowy jasny | 1 kg (16.7%) | 80 % | 45 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Aroma (end of boil) | Lublin (Lubelski) | 30 g | 5 min | 4 % |
| Boil | Marynka | 30 g | 60 min | 10 % |
| Whirlpool | Lublin (Lubelski) | 30 g | 10 min | 4 % |
| Dry Hop | Lublin (Lubelski) | 40 g | 4 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|-------|--------|------------|
| Safale US-05 | Ale | Slant | 300 ml | Fermentis |