

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **16**
- SRM **3.4**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.5 liter(s)**
- Total mash volume **18 liter(s)**

Steps

- Temp **62 C**, Time **1 min**
- Temp **73 C**, Time **50 min**
- Temp **76 C**, Time **15 min**

Mash step by step

- Heat up **13.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **1 min** at **62C**
- Keep mash **50 min** at **73C**
- Keep mash **15 min** at **76C**
- Sparge using **16.3 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|------------------|---------------|-------|-----|
| Grain | słód pilznieński | 4.5 kg (100%) | 80 % | 4 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|----------|------------|
| Boil | Marynka | 20 g | 25 min | 10 % |
| Aroma (end of boil) | Lublin (Lubelski) | 10 g | 2 min | 4 % |
| Dry Hop | Lublin (Lubelski) | 10 g | 3 day(s) | 4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|---------|------------|
| Safbrew S-33 | Ale | Dry | 10.92 g | Safbrew |