

ALE 1.0

- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **28**
- SRM **5.7**
- Style **Blonde Ale**

Batch size

- Expected quantity of finished beer **50 liter(s)**
- Trub loss **3 %**
- Size with trub loss **51.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **58.9 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **32.1 liter(s)**
- Total mash volume **42.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **32.1 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **37.5 liter(s)** of **76C** water or to achieve **58.9 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Pale Ale | 7 kg (65.4%) | 80 % | 5 |
| Grain | Wiedeński | 2 kg (18.7%) | 79 % | 10 |
| Grain | Karmelowy Jasny 30EBC | 1.7 kg (15.9%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil | Amarillo USA | 50 g | 60 min | 8.8 % |
| Boil | Lublin (Lubelski) | 50 g | 15 min | 4 % |
| Aroma (end of boil) | Cascade USA | 50 g | 5 min | 7.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------------------------------|------|-------|--------|------------|
| Mangrove Jack's M44 US West Coast | Ale | Slant | 400 ml | Bunkier |