

Kangaroo Pale Ale

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **38**
- SRM **7.8**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **1 %**
- Size with trub loss **25 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.7 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **26.5 liter(s)**

Steps

- Temp **66 C**, Time **70 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **20.6 liter(s)** of strike water to **72.6C**
- Add grains
- Keep mash **70 min** at **66C**
- Keep mash **5 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **27.7 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 5.3 kg (89.8%) | 80 % | 5 |
| Grain | Karmelowy żytni Strzegom | 0.3 kg (5.1%) | 75 % | 150 |
| Grain | Karmelowy Jasny 30EBC | 0.3 kg (5.1%) | 75 % | 30 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|--------------|--------|----------|------------|
| Boil | Galaxy | 10 g | 60 min | 15 % |
| Boil | Vic Secret | 10 g | 60 min | 16.3 % |
| Aroma (end of boil) | Galaxy | 10 g | 5 min | 15 % |
| Aroma (end of boil) | Vic Secret | 10 g | 5 min | 16.3 % |
| Whirlpool | Vic Secret | 10 g | 5 min | 16.3 % |
| Whirlpool | Enigma (AUS) | 10 g | 5 min | 17.2 % |
| Dry Hop | Galaxy | 20 g | 4 day(s) | 15 % |
| Dry Hop | Vic Secret | 10 g | 4 day(s) | 16.3 % |
| Dry Hop | Enigma (AUS) | 20 g | 4 day(s) | 17.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|-------------|-------------|---------------|-------------------|
| Safale S-04 | Ale | Dry | 11.5 g | Fermentis |