

101. OsloPA, 102. KolszIPA, 103. KolszPA

- Gravity **11 BLG**
- ABV **4.4 %**
- IBU **39**
- SRM **2.3**
- Style **American Pale Ale**

Batch size

- Expected quantity of finished beer **65 liter(s)**
- Trub loss **5 %**
- Size with trub loss **71.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **86 liter(s)**

Mash information

- Mash efficiency **85 %**
- Liquor-to-grist ratio **2 liter(s) / kg**
- Mash size **23.2 liter(s)**
- Total mash volume **34.8 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**

Mash step by step

- Heat up **23.2 liter(s)** of strike water to **80C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Sparge using **74.4 liter(s)** of **76C** water or to achieve **86 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------------|---------------|--------|-----|
| Grain | Briess - Pilsen Malt | 11 kg (90.2%) | 80.5 % | 2 |
| Grain | Barley, Flaked | 0.6 kg (4.9%) | 70 % | 4 |
| Sugar | cukier | 0.6 kg (4.9%) | 100 % | 2 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|------------|--------|--------|------------|
| Boil | lunga | 75 g | 60 min | 11 % |
| Boil | Citra | 30 g | 5 min | 12 % |
| Boil | Centennial | 30 g | 5 min | 9.2 % |
| Boil | El Dorado | 30 g | 5 min | 16.6 % |
| Aroma (end of boil) | Citra | 30 g | 1 min | 12 % |
| Aroma (end of boil) | Centennial | 30 g | 1 min | 9.2 % |
| Aroma (end of boil) | El Dorado | 30 g | 1 min | 16.6 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|----------------------------------|------|--------|---------|----------------|
| WLP029 - German Ale/Kölsch Yeast | Ale | Liquid | 1000 ml | White Labs |
| Oslo | Ale | Liquid | 1000 ml | Bootlegbiology |

Notes

- wiadro nr 1 Oslo w 25 stopniach w domu
wiadro nr 2 14 bfg Kolonskie w lodowce w 16C - 40 gram citra 40 gram Cenntennial
Wiadro nr 3 11 bfg kolonskie w lodowce w 16C - 40 gram citra 40 gram eldorado
planowo warzenie 24.05
May 21, 2020, 2:11 PM