

45# IPA

- Gravity **14.5 BLG**
- ABV **6 %**
- IBU **63**
- SRM **5.6**
- Style **American IPA**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **5 %/h**
- Boil size **24.1 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.7 liter(s)**
- Total mash volume **23.6 liter(s)**

Steps

- Temp **68 C**, Time **60 min**
- Temp **76 C**, Time **10 min**
- Temp **79 C**, Time **1 min**

Mash step by step

- Heat up **17.7 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Keep mash **10 min** at **76C**
- Keep mash **1 min** at **79C**
- Sparge using **12.3 liter(s)** of **76C** water or to achieve **24.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|----------------|-------|-----|
| Grain | Pilzneński | 4.5 kg (76.3%) | 81 % | 4 |
| Grain | Monachijski | 0.7 kg (11.9%) | 80 % | 16 |
| Grain | Carared | 0.3 kg (5.1%) | 75 % | 39 |
| Grain | Płatki owsiane | 0.4 kg (6.8%) | 60 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil | lunga | 50 g | 60 min | 9.1 % |
| Boil | East Kent Goldings | 25 g | 30 min | 5.1 % |
| Boil | East Kent Goldings | 25 g | 15 min | 5.1 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale | Dry | 11 g | Fermentis |