

## Warsztaty Kraków e.12

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **37**
- SRM **3.1**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **18 liter(s)**
- Trub loss **5 %**
- Size with trub loss **18.9 liter(s)**
- Boil time **70 min**
- Evaporation rate **15 %/h**
- Boil size **24.3 liter(s)**

### Mash information

- Mash efficiency **96 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **14 liter(s)**

### Steps

- Temp **62 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **10.5 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **45 min** at **62C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **17.3 liter(s)** of **76C** water or to achieve **24.3 liter(s)** of wort

### Fermentables

| Type  | Name       | Amount        | Yield | EBC |
|-------|------------|---------------|-------|-----|
| Grain | Pilzneński | 3.5 kg (100%) | 81 %  | 4   |

### Hops

| Use for             | Name     | Amount | Time     | Alpha acid |
|---------------------|----------|--------|----------|------------|
| Boil                | Sabro    | 15 g   | 60 min   | 13.6 %     |
| Boil                | Amarillo | 10 g   | 10 min   | 8 %        |
| Boil                | Sabro    | 10 g   | 10 min   | 13.6 %     |
| Aroma (end of boil) | Amarillo | 25 g   | 1 min    | 8 %        |
| Aroma (end of boil) | Sabro    | 25 g   | 1 min    | 13.6 %     |
| Dry Hop             | Amarillo | 25 g   | 3 day(s) | 8 %        |
| Dry Hop             | Sabro    | 25 g   | 3 day(s) | 13.6 %     |

### Notes

- 12,5 BLG  
17 litrów

23.02.2022r - chmielnie na zimno + CC

2.03.2022 r. - butelkowanie -16,5 litra piwa  
99 gram cukru w 300 ml wody  
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