

## Wędzona dwunastka v.2

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **60**
- SRM **4**
- Style **German Pilsner (Pils)**

### Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **15 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **16.5 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **75C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                            | Amount        | Yield | EBC |
|-------|---------------------------------|---------------|-------|-----|
| Grain | Słód Wędzony Steinbach (bukiem) | 5 kg (90.9%)  | 80 %  | 5   |
| Grain | Płatki ryżowe                   | 0.5 kg (9.1%) | 80 %  | 4   |

### Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Eureka! | 25 g   | 60 min | 17.3 %     |
| Boil    | Eureka! | 30 g   | 10 min | 17.3 %     |

### Yeasts

| Name  | Type  | Form | Amount | Laboratory |
|-------|-------|------|--------|------------|
| 34/70 | Lager | Dry  | 11.5 g | fermentis  |

### Notes

- Całość 30 minut w 65°C  
40% podgrzej do 72°C na 15 minut i gotuj 30 minut  
Wygrzew 75°C => Filtracja  
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