

## warka 13 duza

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- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **17**
- SRM **3.7**
- Style **Classic American Pilsner**

### 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 **16.9 liter(s)**
- Total mash volume **22.5 liter(s)**

### Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

### Mash step by step

- Heat up **16.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **17.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield  | EBC |
|-------|----------------------------|----------------|--------|-----|
| Grain | BESTMALZ - Best Pilsen     | 5 kg (89%)     | 80.5 % | 4   |
| Grain | Briess - Wheat Malt, White | 0.5 kg (8.9%)  | 85 %   | 5   |
| Grain | Oats, Malted               | 0.12 kg (2.1%) | 80 %   | 2   |

### Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Saaz (USA) | 40 g   | 40 min | 3.75 %     |
| Boil    | Mosaic     | 20 g   | 5 min  | 10 %       |

### Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

### Notes

- wyszło 20 l,  
6.3 %  
dobre  
May 24, 2018, 8:13 PM