

# bitter

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **31**
- SRM **5.9**
- Style **Standard/Ordinary Bitter**

## Batch size

- Expected quantity of finished beer **29 liter(s)**
- Trub loss **2 %**
- Size with trub loss **30.2 liter(s)**
- Boil time **75 min**
- Evaporation rate **10 %/h**
- Boil size **34.5 liter(s)**

## Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **68 C**, Time **48 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **48 min** at **68C**
- Keep mash **5 min** at **78C**
- Sparge using **24.1 liter(s)** of **76C** water or to achieve **34.5 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | pale ale                   | 4 kg (77.1%)   | 81 %  | 5   |
| Grain | Strzegom Monachijski typ I | 1 kg (19.3%)   | 79 %  | 16  |
| Grain | Weyermann Caramunich 3     | 0.19 kg (3.7%) | 76 %  | 150 |

## Hops

| Use for | Name               | Amount | Time   | Alpha acid |
|---------|--------------------|--------|--------|------------|
| Boil    | East Kent Goldings | 40 g   | 60 min | 5.1 %      |
| Boil    | Fuggles            | 40 g   | 40 min | 4.7 %      |

## Yeasts

| Name                           | Type | Form | Amount | Laboratory |
|--------------------------------|------|------|--------|------------|
| WLP007 - Dry English Ale Yeast | Ale  | Dry  | 100 g  | White Labs |

## Notes

- w garze ok 35l 10brix (musiałem dolać 5l wody do poprawnej gęstości).  
nistety odparowało 5(!) litrów mimo gotowania 90%czasu pod przykryciem do 12,5 brix i poszło 30 litrów do fermentora  
9.04 2,5 blg  
po cichej butelkowanie 150g glukozy i wit. C - 17.04.202

*Mar 21, 2021, 4:33 PM*