

# Old Ale

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- Gravity **16.9 BLG**
- ABV ---
- IBU **38**
- SRM **18.7**
- Style **Old Ale**

## Batch size

- Expected quantity of finished beer **27 liter(s)**
- Trub loss **5 %**
- Size with trub loss **28.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **34.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **22.7 liter(s)**
- Total mash volume **31.1 liter(s)**

## Steps

- Temp **67 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **1 min**

## Mash step by step

- Heat up **22.7 liter(s)** of strike water to **75.7C**
- Add grains
- Keep mash **45 min** at **67C**
- Keep mash **15 min** at **72C**
- Keep mash **1 min** at **78C**
- Sparge using **19.9 liter(s)** of **76C** water or to achieve **34.2 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt | 5 kg (59.5%)   | 85 %  | 7   |
| Grain | Monachijski               | 2.5 kg (29.8%) | 80 %  | 16  |
| Grain | Carabelge                 | 0.3 kg (3.6%)  | 30 %  | 35  |
| Grain | Karmelowy Czerwony        | 0.3 kg (3.6%)  | 75 %  | 59  |
| Grain | Czekoladowy jasny         | 0.3 kg (3.6%)  | 68 %  | 400 |

## Hops

| Use for             | Name               | Amount | Time   | Alpha acid |
|---------------------|--------------------|--------|--------|------------|
| Boil                | Fuggles            | 40 g   | 60 min | 5.4 %      |
| Boil                | East Kent Goldings | 40 g   | 60 min | 5.7 %      |
| Aroma (end of boil) | Fuggles            | 60 g   | 5 min  | 5.4 %      |

## Yeasts

| Name                 | Type | Form    | Amount | Laboratory       |
|----------------------|------|---------|--------|------------------|
| FM12 W szkocką kratę | Ale  | Culture | --- g  | Fermentum Mobile |

## Notes

- Sól czekoladowy tylko na 5min  
*Apr 1, 2016, 4:34 PM*