

# 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*