

## (JM) UNDEAD PALE ALE

- Gravity **14.3 BLG**
- ABV **5.9 %**
- IBU **42**
- SRM **8.6**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **27.6 liter(s)**

### Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.8 liter(s)**
- Total mash volume **28 liter(s)**

### Steps

- Temp **65 C**, Time **90 min**
- Temp **75 C**, Time **10 min**

### Mash step by step

- Heat up **21.8 liter(s)** of strike water to **71.4C**
- Add grains
- Keep mash **90 min** at **65C**
- Keep mash **10 min** at **75C**
- Sparge using **12 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Simpsons - Golden Promise	5 kg (80.4%)	85 %	5
Grain	Simpsons - Munich Malt	0.5 kg (8%)	80 %	23
Grain	Simpsons - Amber Malt	0.32 kg (5.1%)	70 %	60
Grain	Simpsons - Caramalt	0.2 kg (3.2%)	70 %	36
Grain	Simpsons - Crystal T50	0.2 kg (3.2%)	70 %	130

### Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Citra	20 g	45 min	12.9 %
Wrzucone zaraz po zakończeniu filtracji i rozpoczęciu grzania				
Boil	Citra	20 g	10 min	12.9 %
Aroma (end of boil)	Citra	30 g	5 min	12.9 %
Whirlpool	Citra	80 g	0 min	12.9 %
Hopstand w 75-78C przez 30min				
Dry Hop	Citra	50 g	3 day(s)	12.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Voss kveik	Ale	Slant	5 ml	House culture

## Extras

Type	Name	Amount	Use for	Time
Fining	Whirlfloc	1 g	Boil	10 min

## Notes

- next time zamiast Caramalt dać dekstrynowy (jest z Simpsona)  
- dałem 320 Ambera bo mi akurat tak zostało, w recepturze jest 200g (3.3%)  
*Feb 7, 2020, 3:03 PM*