

# Dromader Single Hop

- Gravity **14 BLG**
- ABV **5.8 %**
- IBU **46**
- SRM **7.3**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **29.1 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **21.9 liter(s)**
- Total mash volume **28.1 liter(s)**

## Steps

- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **45 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **21.9 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **30 min** at **62C**
- Keep mash **45 min** at **72C**
- Keep mash **15 min** at **78C**
- Sparge using **13.5 liter(s)** of **76C** water or to achieve **29.1 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Thomas Fawcett Halcyon	3 kg (48%)	80.5 %	5
Grain	Strzegom Wiedeński	1 kg (16%)	79 %	10
Grain	Strzegom Bursztynowy	0.5 kg (8%)	70 %	49
Grain	Caramel Hell Bestmalz	0.5 kg (8%)	75 %	30
Grain	Strzegom Pale Ale	1.25 kg (20%)	79 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	HBC 472 - USA	20 g	60 min	9.3 %
Boil	HBC 472 - USA	30 g	30 min	9.3 %
Aroma (end of boil)	HBC 472 - USA	20 g	10 min	9.3 %
Aroma (end of boil)	HBC 472 - USA	10 g	5 min	9.3 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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Mangrove Jack's M44 US West Coast	Ale	Dry	11 g	Mangrove Jack's
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