

# Klon Hazy Morning

- Gravity **12.6 BLG**
- ABV **5.1 %**
- IBU **15**
- SRM **3.7**
- 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 **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16.5 liter(s)**
- Total mash volume **22 liter(s)**

## Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **16.5 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2.5 kg (45.5%)	81 %	4
Grain	Pszeniczny	1.5 kg (27.3%)	85 %	4
Grain	Płatki owsiane	1.5 kg (27.3%)	60 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Columbus	10 g	50 min	15.5 %
Whirlpool	Citra	25 g	0 min	12 %
Whirlpool	Columbus	40 g	0 min	15.5 %
Dry Hop	Citra	25 g	5 day(s)	12 %
Dry Hop	Mosaic	25 g	5 day(s)	10 %
Dry Hop	Enigma (AUS)	25 g	5 day(s)	17.2 %
Dry Hop	Mosaic	25 g	3 day(s)	10 %
Dry Hop	Enigma (AUS)	25 g	3 day(s)	17.2 %

## Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Safale US-05	Ale	Dry	11.5 g	Fermentis
--------------	-----	-----	--------	-----------