

# klon Hazy Morning

- Gravity **10.2 BLG**
- ABV **4.1 %**
- IBU **34**
- SRM **3.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **10 %**
- Size with trub loss **23.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **11 %/h**
- Boil size **28.2 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **14.3 liter(s)**
- Total mash volume **18.4 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **15 min**

## Mash step by step

- Heat up **14.3 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **15 min** at **78C**
- Sparge using **18 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	2.1 kg (51.2%)	80 %	4
Grain	Płatki owsiane	1 kg (24.4%)	85 %	3
Grain	Weyermann pszeniczny jasny	1 kg (24.4%)	80 %	6

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Galaxy	5 g	50 min	15.5 %
Boil	Mosaic	5 g	50 min	11.2 %
Boil	Citra	5 g	50 min	11.8 %
Boil	Galaxy	5 g	5 min	15.5 %
Boil	Citra	5 g	5 min	11.8 %
Boil	Mosaic	5 g	5 min	11.2 %
Aroma (end of boil)	Galaxy	10 g	0 min	15.5 %
Aroma (end of boil)	Mosaic	10 g	0 min	11.2 %
Aroma (end of boil)	Citra	10 g	0 min	11.8 %
Whirlpool	Citra	10 g	15 min	11.8 %
Whirlpool	Mosaic	10 g	15 min	11.2 %

Whirlpool	Galaxy	10 g	15 min	15.5 %
Dry Hop	Mosaic	10 g	5 day(s)	11.2 %
Dry Hop	Citra	11 g	5 day(s)	11.8 %
Dry Hop	Galaxy	12 g	5 day(s)	15.5 %
Dry Hop	Galaxy	15 g	3 day(s)	15.5 %
Dry Hop	Mosaic	12 g	3 day(s)	11.2 %
Dry Hop	Citra	7 g	3 day(s)	11.8 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Dry	11.5 g	Fermentis