

# Hazy Morning szudent

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- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **4**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **42.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **51.5 liter(s)**

## Mash information

- Mash efficiency **70 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **34.5 liter(s)**
- Total mash volume **46 liter(s)**

## Steps

- Temp **69 C**, Time **70 min**
- Temp **76 C**, Time **10 min**

## Mash step by step

- Heat up **34.5 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **70 min** at **69C**
- Keep mash **10 min** at **76C**
- Sparge using **28.5 liter(s)** of **76C** water or to achieve **51.5 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilznieński	10 kg (87%)	80 %	4
Grain	Pszeniczny	1 kg (8.7%)	85 %	4
Grain	Płatki owsiane	0.5 kg (4.3%)	85 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	60 g	5 min	12 %
Boil	Galaxy	30 g	5 min	13.6 %
Boil	Mosaic	60 g	5 min	11.5 %
Boil	Falconer's fight	30 g	5 min	10.3 %
Boil	Columbus/Tomahawk/Zeus	30 g	5 min	13.9 %
Dry Hop	Citra	30 g	5 day(s)	12 %
Dry Hop	Galaxy	50 g	5 day(s)	13.6 %
Dry Hop	Mosaic	30 g	5 day(s)	11.5 %
Dry Hop	Falconer's fight	30 g	5 day(s)	10.3 %
Dry Hop	Columbus/Tomahawk/Zeus	60 g	5 day(s)	13.9 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale S-04	Ale	Dry	20 g	---
Safale US-05	Ale	Dry	20 g	---

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	15 min
Fining	worlock	0.5 g	Boil	15 min

### Notes

- Wrzucanie słodów przy 40 stopniach.

warka podzielona na poł i fermentowana 20 l s-04 i 20l us-05  
*Jan 16, 2020, 10:42 PM*