

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 |