

# Hazy Apa M

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- Gravity **12.9 BLG**
- ABV **5.2 %**
- IBU **22**
- SRM **4.1**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **40 liter(s)**
- Trub loss **5 %**
- Size with trub loss **44 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **52.8 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **35.4 liter(s)**
- Total mash volume **45.5 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **72 C**, Time **25 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **35.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **25 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **27.5 liter(s)** of **76C** water or to achieve **52.8 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt       | 7.8 kg (77.2%) | 80 %  | 5   |
| Grain | Wheat, Flaked              | 0.6 kg (5.9%)  | 77 %  | 4   |
| Grain | Oats, Flaked               | 0.8 kg (7.9%)  | 80 %  | 2   |
| Grain | Briess - Rye Malt          | 0.6 kg (5.9%)  | 80 %  | 7   |
| Grain | Strzegom Monachijski typ I | 0.3 kg (3%)    | 79 %  | 16  |

## Hops

| Use for | Name       | Amount | Time     | Alpha acid |
|---------|------------|--------|----------|------------|
| Boil    | Simcoe     | 20 g   | 5 min    | 11.3 %     |
| Boil    | Simcoe     | 15 g   | 15 min   | 11.3 %     |
| Boil    | Amarillo   | 20 g   | 5 min    | 9.9 %      |
| Boil    | Amarillo   | 15 g   | 15 min   | 9.9 %      |
| Boil    | Centennial | 20 g   | 5 min    | 10.5 %     |
| Boil    | Centennial | 15 g   | 15 min   | 10.5 %     |
| Dry Hop | Simcoe     | 15 g   | 4 day(s) | 11.3 %     |
| Dry Hop | Amarillo   | 15 g   | 4 day(s) | 9.5 %      |

|         |          |       |          |       |
|---------|----------|-------|----------|-------|
| Dry Hop | Cascade  | 100 g | 4 day(s) | 6 %   |
| Boil    | Amarillo | 10 g  | 15 min   | 8.5 % |
| Boil    | Wai-iti  | 10 g  | 15 min   | 2.1 % |

## Yeasts

| Name                            | Type | Form   | Amount  | Laboratory       |
|---------------------------------|------|--------|---------|------------------|
| Lallemand - LalBrew Verdant IPA | Ale  | Dry    | 22 g    | Lallemand        |
| FM55 Zielone Wzgórze            | Ale  | Liquid | 1000 ml | Fermentum Mobile |