

# HAPA

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- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **39**
- SRM **4.6**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **5 %**
- Size with trub loss **12.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **15.2 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9.8 liter(s)**
- Total mash volume **13 liter(s)**

## Fermentables

| Type  | Name                 | Amount         | Yield | EBC |
|-------|----------------------|----------------|-------|-----|
| Grain | Viking Pale Ale malt | 1.7 kg (52.3%) | 80 %  | 5   |
| Grain | Pszeniczny           | 0.7 kg (21.5%) | 80 %  | 4   |
| Grain | Płatki pszeniczne    | 0.5 kg (15.4%) | 70 %  | 3   |
| Grain | Płatki owsiane       | 0.25 kg (7.7%) | 70 %  | 3   |
| Grain | Abbey Castle         | 0.1 kg (3.1%)  | 80 %  | 45  |

## Hops

| Use for   | Name     | Amount | Time     | Alpha acid |
|-----------|----------|--------|----------|------------|
| Boil      | Citra    | 10 g   | 60 min   | 12 %       |
| Whirlpool | Sabro    | 50 g   | 5 min    | 9.5 %      |
| Whirlpool | Cascade  | 50 g   | 5 min    | 6 %        |
| Whirlpool | Amarillo | 20 g   | 5 min    | 9.5 %      |
| Dry Hop   | Sabro    | 50 g   | 3 day(s) | 9.5 %      |

## Notes

- lunga + Ekuanot + Citra  
*Mar 30, 2019, 8:43 PM*