

# KassApa3

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **25**
- SRM **10.3**
- 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 **65 min**
- Evaporation rate **10 %/h**
- Boil size **15.3 liter(s)**

## Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **10.2 liter(s)**
- Total mash volume **13.6 liter(s)**

## Steps

- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **10.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **8.5 liter(s)** of **76C** water or to achieve **15.3 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount          | Yield  | EBC |
|-------|----------------------------|-----------------|--------|-----|
| Grain | Briess - Pale Ale Malt     | 1.78 kg (52.5%) | 80 %   | 7   |
| Grain | Weyermann - Carawheat      | 0.18 kg (5.3%)  | 77 %   | 115 |
| Grain | Acid Malt                  | 0.03 kg (0.9%)  | 58.7 % | 6   |
| Grain | Viking melanoidynowy       | 0.14 kg (4.1%)  | 75 %   | 60  |
| Grain | Strzegom Wiedeński         | 0.27 kg (8%)    | 79 %   | 10  |
| Grain | Rice, Flaked               | 0.11 kg (3.2%)  | 70 %   | 2   |
| Grain | Monachijski                | 0.44 kg (13%)   | 80 %   | 16  |
| Grain | Oats, Flaked               | 0.22 kg (6.5%)  | 80 %   | 2   |
| Grain | Wheat, Flaked              | 0.18 kg (5.3%)  | 77 %   | 4   |
| Grain | Strzegom Czekoladowy jasny | 0.04 kg (1.2%)  | 68 %   | 400 |

## Hops

| Use for | Name      | Amount | Time   | Alpha acid |
|---------|-----------|--------|--------|------------|
| Boil    | Hallertau | 20 g   | 60 min | 4.5 %      |
| Boil    | Cascade   | 10 g   | 30 min | 6 %        |

## Yeasts

| Name   | Type | Form  | Amount | Laboratory |
|--------|------|-------|--------|------------|
| WLP004 | Ale  | Slant | 100 ml | ---        |