# Kwas I

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- Gravity **10 BLG**
- ABV **4 %**
- IBU **6**
- SRM **3.7**
- Style **Berliner Weisse**

## Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **10 %**
- Size with trub loss **17.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **20.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **10.5 liter(s)**
- Total mash volume **13.5 liter(s)**

## Steps

- Temp **68 C**, Time **60 min**

## Mash step by step

- Heat up **10.5 liter(s)** of strike water to **74.9C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **13.2 liter(s)** of **76C** water or to achieve **20.7 liter(s)** of wort

## Fermentables

| Type | Name | Amount | Yield | EBC |
|---|---|---|---|---|
| Grain | Viking Pale Ale malt | 1 kg *(33.3%)* | 80 % | 5 |
| Grain | Żytni | 1 kg *(33.3%)* | 85 % | 8 |
| Grain | Pilzneński | 1 kg *(33.3%)* | 81 % | 4 |

## Hops

| Use for | Name | Amount | Time | Alpha acid |
|---|---|---|---|---|
| Boil | Marynka | 5 g | 30 min | 10 % |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|---|---|---|---|---|
| lactobacillus rhamnosus | Ale | Culture | 400 g | --- |
| FM10 O czym szumią wierzby | Ale | Slant | 200 ml | Fermentum Mobile |