

# RIS 2020

- Gravity **23.8 BLG**
- ABV **10.9 %**
- IBU **73**
- SRM **54**

## Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **37.5 liter(s)**
- Total mash volume **50 liter(s)**

## Steps

- Temp **70 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **37.5 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **70C**
- Keep mash **10 min** at **78C**
- Sparge using **6.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name            | Amount      | Yield | EBC |
|-------|-----------------|-------------|-------|-----|
| Grain | PaleAle         | 8 kg (64%)  | 80 %  | 5   |
| Grain | Pilznenski      | 2 kg (16%)  | 80 %  | 9   |
| Grain | Pszeniczny      | 0.5 kg (4%) | 80 %  | 5   |
| Grain | Kawowy 500      | 0.5 kg (4%) | 80 %  | 500 |
| Grain | Czekoladowy 900 | 1 kg (8%)   | 80 %  | 900 |
| Grain | Barwiący        | 0.5 kg (4%) | 55 %  | 985 |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Bravo   | 60 g   | 60 min | 14 %       |
| Boil    | mistral | 50 g   | 30 min | 8 %        |
| Boil    | mistral | 50 g   | 10 min | 8 %        |

## Yeasts

| Name | Type | Form  | Amount | Laboratory |
|------|------|-------|--------|------------|
| us05 | Ale  | Slant | 200 ml | ---        |