

# Misio

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- Gravity **12.1 BLG**
- ABV **4.9 %**
- IBU **17**
- SRM **19.1**
- Style **Brown Porter**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **29.5 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **16 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **69 C**, Time **60 min**
- Temp **74 C**, Time **10 min**

## Mash step by step

- Heat up **16 liter(s)** of strike water to **77.2C**
- Add grains
- Keep mash **60 min** at **69C**
- Keep mash **10 min** at **74C**
- Sparge using **18.9 liter(s)** of **76C** water or to achieve **29.5 liter(s)** of wort

## Fermentables

| Type  | Name                           | Amount         | Yield | EBC  |
|-------|--------------------------------|----------------|-------|------|
| Grain | Strzegom Pale Ale              | 4 kg (74.8%)   | 79 %  | 6    |
| Grain | Brown Malt (British Chocolate) | 0.5 kg (9.3%)  | 70 %  | 128  |
| Grain | Strzegom pszenica prażona      | 0.25 kg (4.7%) | 70 %  | 1000 |
| Grain | Płatki owsiane                 | 0.6 kg (11.2%) | 85 %  | 3    |

## Hops

| Use for | Name       | Amount | Time   | Alpha acid |
|---------|------------|--------|--------|------------|
| Boil    | Willamette | 15 g   | 60 min | 5 %        |
| Boil    | Marynka    | 10 g   | 60 min | 10 %       |

## Yeasts

| Name                 | Type | Form | Amount | Laboratory |
|----------------------|------|------|--------|------------|
| Danstar - Nottingham | Ale  | Dry  | 11 g   | Danstar    |