

# Magiczna Flet

- Gravity **14.5 BLG**
- ABV ---
- IBU **66**
- SRM **6.8**
- Style **American IPA**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.94 liter(s) / kg**
- Mash size **18.3 liter(s)**
- Total mash volume **24.6 liter(s)**

## Steps

- Temp **66 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18.3 liter(s)** of strike water to **73.8C**
- Add grains
- Keep mash **60 min** at **66C**
- Keep mash **10 min** at **78C**
- Sparge using **16.9 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount          | Yield | EBC |
|-------|-----------------------|-----------------|-------|-----|
| Grain | Strzegom Pale Ale     | 5 kg (80.2%)    | 79 %  | 6   |
| Grain | Karmelowy Jasny 30EBC | 1 kg (16%)      | 75 %  | 30  |
| Grain | Jęczmień niesłodowany | 0.235 kg (3.8%) | 75 %  | 2   |

## Hops

| Use for             | Name                   | Amount | Time   | Alpha acid |
|---------------------|------------------------|--------|--------|------------|
| Boil                | Columbus/Tomahawk/Zeus | 22 g   | 60 min | 15.5 %     |
| Boil                | Simcoe                 | 17 g   | 60 min | 13.2 %     |
| Aroma (end of boil) | Columbus/Tomahawk/Zeus | 18 g   | 5 min  | 15.5 %     |
| Aroma (end of boil) | Simcoe                 | 23 g   | 5 min  | 13.2 %     |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |