

# Nie ma futbolu bez alkoholu

- Gravity **14.7 BLG**
- ABV **6.1 %**
- IBU **26**
- SRM **4.7**
- Style **American Pale Ale**

## 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 **85 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **22.8 liter(s)**
- Total mash volume **29.3 liter(s)**

## Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **40 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **22.8 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **40 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **15.4 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

## Fermentables

| Type  | Name                          | Amount         | Yield  | EBC |
|-------|-------------------------------|----------------|--------|-----|
| Grain | Weyermann<br>pszeniczny jasny | 0.7 kg (10.8%) | 80 %   | 6   |
| Grain | BESTMALZ - Bestt<br>Pale Ale  | 5.8 kg (89.2%) | 80.5 % | 6   |

## Hops

| Use for   | Name     | Amount | Time   | Alpha acid |
|-----------|----------|--------|--------|------------|
| Boil      | Oktawia  | 29 g   | 60 min | 9.2 %      |
| Boil      | Oktawia  | 10 g   | 20 min | 9.2 %      |
| Whirlpool | Citra    | 15 g   | 0 min  | 13.2 %     |
| Whirlpool | Amarillo | 15 g   | 0 min  | 8.2 %      |
| Whirlpool | Galaxy   | 15 g   | 0 min  | 15 %       |

## Yeasts

| Name                    | Type | Form  | Amount | Laboratory       |
|-------------------------|------|-------|--------|------------------|
| FM52 Amerykański<br>Sen | Ale  | Slant | 150 ml | Fermentum Mobile |