

# AP

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **32**
- SRM **3.8**
- Style **American Wheat or Rye Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **20 %/h**
- Boil size **27.6 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.9 liter(s)**
- Total mash volume **21.2 liter(s)**

## Steps

- Temp **62 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **15.9 liter(s)** of strike water to **69C**
- Add grains
- Keep mash **60 min** at **62C**
- Keep mash **10 min** at **78C**
- Sparge using **17 liter(s)** of **76C** water or to achieve **27.6 liter(s)** of wort

## Fermentables

| Type  | Name                  | Amount         | Yield | EBC |
|-------|-----------------------|----------------|-------|-----|
| Grain | Pszeniczny Viking     | 2.5 kg (47.2%) | 82 %  | 4   |
| Grain | Pilzneński Soufflet   | 2.5 kg (47.2%) | 81 %  | 4   |
| Grain | Pszenica niestodowana | 0.3 kg (5.7%)  | 75 %  | 3   |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Chinook | 10 g   | 60 min | 10 %       |
| Boil                | Chinook | 10 g   | 45 min | 10 %       |
| Boil                | Chinook | 10 g   | 30 min | 10 %       |
| Boil                | Cascade | 10 g   | 15 min | 6 %        |
| Aroma (end of boil) | Cascade | 10 g   | 0 min  | 6 %        |

## Yeasts

| Name                   | Type  | Form  | Amount | Laboratory       |
|------------------------|-------|-------|--------|------------------|
| FM41 Gwoździe i Banany | Wheat | Slant | 300 ml | Fermentum Mobile |