

# Farbowany lis

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **27**
- SRM **12.4**
- Style **Düsseldorf Altbier**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **27.8 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **17.4 liter(s)**
- Total mash volume **23.2 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **63 C**, Time **30 min**
- Temp **72 C**, Time **40 min**

## Mash step by step

- Heat up **17.4 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **30 min** at **63C**
- Keep mash **40 min** at **72C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **27.8 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński      | 2 kg (34.5%)   | 80 %  | 4   |
| Grain | Strzegom Wiedeński       | 2.5 kg (43.1%) | 79 %  | 10  |
| Grain | Strzegom Czekoladowy 400 | 0.3 kg (5.2%)  | 68 %  | 400 |
| Grain | Monachijski              | 1 kg (17.2%)   | 80 %  | 16  |

## Hops

| Use for             | Name      | Amount | Time     | Alpha acid |
|---------------------|-----------|--------|----------|------------|
| Boil                | Magnum    | 20 g   | 60 min   | 12 %       |
| Aroma (end of boil) | Hallertau | 20 g   | 10 min   | 4.5 %      |
| Dry Hop             | Hallertau | 30 g   | 5 day(s) | 4.5 %      |

## Yeasts

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

## Extras

| Type | Name | Amount | Use for | Time |
|------|------|--------|---------|------|
|------|------|--------|---------|------|

|        |                |      |      |        |
|--------|----------------|------|------|--------|
| Fining | mech irlandzki | 10 g | Boil | 15 min |
|--------|----------------|------|------|--------|