

# 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
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Fining	mech irlandzki	10 g	Boil	15 min
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