

# Jasne Pełne

- Gravity **15.7 BLG**
- ABV ---
- IBU **42**
- SRM **6.4**
- Style **English IPA**

## Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **95 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **15.6 liter(s)**
- Total mash volume **20.8 liter(s)**

## Steps

- Temp **70 C**, Time **30 min**
- Temp **65 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

## Mash step by step

- Heat up **15.6 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **70C**
- Keep mash **5 min** at **78C**
- Sparge using **18.6 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pale Ale Malt Europe	4 kg (76.9%)	80 %	7
Grain	Pszeniczny	0.5 kg (9.6%)	85 %	4
Grain	Płatki jęczmienne	0.4 kg (7.7%)	85 %	3
Grain	Strzegom Karmel 30	0.3 kg (5.8%)	75 %	30

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Magnum	40 g	60 min	8.6 %
Aroma (end of boil)	Willamette	30 g	30 min	4.7 %
Whirlpool	Willamette	30 g	30 min	4.7 %
Dry Hop	Willamette	40 g	3 day(s)	4.7 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Slant	150 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min

### Notes

- Whirlpool 70 C 30min  
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