

## #VII WIPA z Gruszkami

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU **70**
- SRM **4**
- Style **White IPA**

### Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.2 liter(s)**
- Boil time **70 min**
- Evaporation rate **2 %/h**
- Boil size **28.2 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18 liter(s)**
- Total mash volume **24 liter(s)**

### Steps

- Temp **67 C**, Time **70 min**
- Temp **78 C**, Time **10 min**

### Mash step by step

- Heat up **18 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **70 min** at **67C**
- Keep mash **10 min** at **78C**
- Sparge using **16.2 liter(s)** of **76C** water or to achieve **28.2 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pale Ale	3 kg (50%)	79 %	6
Grain	Pilzneński	1 kg (16.7%)	80.5 %	4
Grain	Słód Pszeniczny Heidelberg	1 kg (16.7%)	82 %	3
Grain	Wheat, Flaked	0.5 kg (8.3%)	77 %	4
Grain	Rice, Flaked	0.5 kg (8.3%)	70 %	2

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Experimental P10/9	10 g	60 min	6.9 %
Boil	Calypso	10 g	60 min	14.9 %
Boil	Jarrylo	10 g	60 min	15 %
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Boil	Experimental P10/9	10 g	15 min	6.9 %
Boil	Calypso	10 g	15 min	14.9 %
Boil	Jarrylo	10 g	15 min	15 %

Aroma (end of boil)	Experimental P10/9	10 g	5 min	6.9 %
Aroma (end of boil)	Calypso	10 g	5 min	14.9 %
Aroma (end of boil)	Jarrylo	10 g	5 min	15 %
Dry Hop	Experimental P10/9	15 g	5 day(s)	6.9 %
Dry Hop	Calypso	15 g	5 day(s)	14.9 %
Dry Hop	Jarrylo	15 g	5 day(s)	15 %

## Yeasts

Name	Type	Form	Amount	Laboratory
FM11 Wichrowe Wzgórza	Ale	Liquid	30 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Flavor	Gruszki	150 g	Boil	30 min
Flavor	Gruszki	300 g	Boil	20 min
Flavor	Gruszki	400 g	Boil	15 min
Flavor	Gruszki	300 g	Boil	10 min
Flavor	Gruszki	640 g	Boil	5 min
Flavor	Pulpa gruszkowa	2700 g	Secondary	20 day(s)
Flavor	Pulpa gruszkowa	2400 g	Secondary	10 day(s)