

## ira 3

- Gravity **13.3 BLG**
- ABV ---
- IBU **21**
- SRM **17.8**
- Style **Irish Red Ale**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **23.1 liter(s)**
- Boil time **70 min**
- Evaporation rate **10 %/h**
- Boil size **28.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.36 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **22 liter(s)**

### Steps

- Temp **67 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

### Mash step by step

- Heat up **17 liter(s)** of strike water to **74C**
- Add grains
- Keep mash **40 min** at **67C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **16.4 liter(s)** of **76C** water or to achieve **28.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzneński	3.5 kg (69.3%)	80 %	8
Grain	Strzegom Monachijski typ II	0.3 kg (5.9%)	79 %	43
Grain	Strzegom Pale Ale	0.4 kg (7.9%)	79 %	12
Grain	crystal 150	0.3 kg (5.9%)	79 %	296
Grain	Karmelowy Czerwony	0.5 kg (9.9%)	75 %	59
Grain	Jęczmień palony 1000	0.05 kg (1%)	--- %	100

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	10 g	60 min	10 %
Aroma (end of boil)	Bramling cross	15 g	30 min	6 %
Aroma (end of boil)	Bramling cross	15 g	10 min	6 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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belgian wit m21	Ale	Slant	100 ml	---
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### Extras

Type	Name	Amount	Use for	Time
Spice	kolendra	5 g	Boil	5 min
Fining	mech irlandzki	7 g	Boil	5 min

### Notes

- jęczmień palony wsypać na 5 minut przed końcem zacierania  
*Oct 9, 2016, 7:17 PM*