

## 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 |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                 |     |       |        |     |
|-----------------|-----|-------|--------|-----|
| belgian wit m21 | Ale | Slant | 100 ml | --- |
|-----------------|-----|-------|--------|-----|

### 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*