



# BAKERY FORMULAS



# FRENCH BREAD WITH POOLISH

	AMERICAN	METRIC
<b>POOLISH</b>		
King Arthur Sir Galahad Flour	6.60 #	3.00 kg
Water	6.60 #	3.00 kg
Yeast	0.01 #	* kg
<b>FINAL DOUGH</b>		
King Arthur Sir Galahad Flour	13.40 #	6.10 kg
Water	6.60 #	3.00 kg
Salt	0.40 #	0.18 kg
Yeast	0.21 #	0.10 kg
Poolish	13.21 #	6.00 kg
Yield	33.82 #	15.37 kg
<b>OVERALL BAKER'S %</b>		
King Arthur Sir Galahad Flour	20.00 #	100.00 %
Water	13.20 #	66.00 %
Salt	0.40 #	2.00 %
Yeast	0.22 #	1.10 %
Unit Weight	0.875 #	

1. Poolish is set by blending flour, water and yeast. Cover and allow to rest at 70°F for 14-16 hours.
2. Mix final dough. In spiral mixer: 2-3 minutes on 1st speed and 2-3 minutes on 2nd speed. Desired dough temperature: 76°-78°F.
3. Bulk fermentation of 2 hours, with a fold after 1 hour.
4. Scale into 14 oz. pieces for baguettes; 7# press for 3 oz. french rolls.
5. Preshape and relax 20-30 minutes, covered.
6. Shape and final proof of 60-90 minutes at 75°F. Take care not to over proof.
7. Bake at 435°F (225°C) for approximately 23-25 minutes. Pre-steam oven and give additional steam of 2-3 seconds.



# CIABATTA WITH BIGA

	AMERICAN	METRIC
<b>BIGA</b>		
King Arthur Sir Galahad Flour	4.00 #	1.82 kg
Water	2.40 #	1.10 kg
Yeast	* #	* kg
<b>FINAL DOUGH</b>		
King Arthur Sir Galahad Flour	16.00 #	7.27 kg
Water	12.20 #	5.45 kg
Salt	0.40 #	0.18 kg
Yeast	0.24 #	0.11 kg
Biga	6.40 #	2.90 kg
Yield	35.24 #	16.00 kg
<b>OVERALL BAKER'S %</b>		
King Arthur Sir Galahad Flour	20.00 #	100.00 %
Water	14.60 #	73.00 %
Salt	0.40 #	2.00 %
Yeast	0.24 #	1.20 %
Unit Weight	1.125 #	

- Mix biga. It will be a medium soft dough. Cover and let rest overnight at 70°F for 13-15 hours.
- Mix final dough. In spiral mixer: 2-3 minutes on 1st speed and then 2-3 minutes on 2nd speed. Dough will be very slack, almost pourable.  
Desired dough temperature: 76°-78°F
- Bulk fermentation of 3 hours, with a fold after 1 hour and after the second hour.
- At hour 3, spread onto bench without degassing dough.
- Divide into 1# 2 oz. pieces and place on floured boards.
- For focaccia, scale 1.25# pieces into well-oiled 10-inch cake pans prior to proofing. Top as desired.
- Proof approximately 60-90 minutes at 75°F. Monitor wetness of dough pieces.
- Bake at 435°F (225°C) for approximately 32-36 minutes with steam. Take care not to under bake.



# ROASTED POTATO BREAD

	AMERICAN	METRIC
<b>PÂTE FERMENTÉE</b>		
King Arthur Special Flour 7.24 # 3.29 kg		
Water	4.68 #	2.13 kg
Salt	0.14 #	0.06 kg
Yeast	0.13 #	0.06 kg
<b>FINAL DOUGH</b>		
Potatoes, roasted	4.98 #	2.27 kg
King Arthur Special Flour	1.48 #	5.22 kg
King Arthur Whole Wheat Flour	1.28 #	0.58 kg
Pâte Fermentée	12.19 #	5.54 kg
Water	7.59 #	3.45 kg
Salt	0.34 #	0.15 kg
Yeast	0.16 #	0.07 kg
Yield	38.00 #	17.29 kg
<b>OVERALL BAKER'S %</b>		
King Arthur Special Flour	18.72 #	93.60 %
King Arthur Whole Wheat Flour	1.28 #	6.40 %
Water	12.27 #	61.35 %
Salt	0.48 #	2.40 %
Yeast	0.29 #	1.45 %
Potatoes, cooked	4.98 #	24.90 %
Unit Weight	1.50 #	

1. This bread begins with a Pâte Fermentée of 12# 3 oz. It can be mixed separately or cut from a lean dough mixed earlier.
2. Mix final dough. In spiral mixer: 2-3 minutes on 1st speed and 2-3 minutes on 2nd speed. Desired dough temperature: 76°-78°F.
3. Bulk fermentation of 1 1/2 hours, with a fold after 45 minutes.
4. Scale at 1 1/2# and lightly preshape. Rest covered for 15-20 minutes.
5. Give final shape and proof approximately 50-60 minutes, in proof box, 60-90 minutes at 75°F.
6. Bake with steam at 435°F (225°C) for approximately 35 minutes.

*Note: For pan loaves, bulk ferment total of 45 minutes with no folding.*



# SUGAR COOKIES

	AMERICAN	METRIC
Granulated Sugar	4.00 #	1816 g
Butter	2.67 #	1212 g
A.P. Shortening	2.67 #	1212 g
Salt	0.08 #	36 g
Baking Soda	0.08 #	36 g
Baking Powder	0.08 #	36 g
Vanilla	0.03 #	14 g
Whole Egg	1.33 #	604 g
King Arthur Round Table Pastry Flour	8.45 #	3836 g
Total Weight	19.40 #	8802 g

1. Cream together well the sugar and butter (3-5 minutes on 1st speed).
2. Bring together A.P. shortening, salt, baking soda and baking powder on 2nd speed.
3. Blend together and add vanilla and egg gradually until incorporated.
4. Mix flour in at 1st speed for 1-2 minutes just until incorporated.
5. Chill dough several hours prior to sheeting. Dough should be sheeted (rolled) to 8 mm. Cut out shapes and place on pan.
6. Egg wash prior to baking.
7. Rack oven: bake at 350° for 10-11 minutes.  
Reel oven: bake at 385° for 11-12 minutes.



# HOMESTYLE CINNAMON SWIRL BREAD

	BAKER'S %	AMERICAN	METRIC
Water (cool)	62%	15.5 #	7.03 kg
Yeast (compressed)	3%	.75 #	340 g
King Arthur Special Flour	80%	20 #	9.08 kg
King Arthur Round Table Pastry Flour	20%	5.0 #	2.27 kg
Non-Fat Dry Milk	5%	1.25 #	570 g
Salt	2%	.50 #	230 g
Sugar	10%	2.5 #	1.15 kg
Shortening	10%	2.5 #	1.15 kg
Cinnamon		3 oz	86 g
Sugar		1 #	460 g
Total		48.0 #	21.8 kg

1. Calculate water temperature needed to arrive at final dough temperature of 74°-78°F.
2. Crumble yeast and add to water.
3. Mix to full development.
4. Bulk fermentation 2.5 hours. Give one fold at 1.5 hours.
5. Divide into 18 oz. pieces for 1# strap pans. Bench rest 20 minutes, covered.
6. Roll out as for cinnamon rolls. Wash with water; sprinkle generously with cinnamon sugar mixture (mixture = 3 oz. of cinnamon/1# sugar).
7. Roll up, pan and give full proof.
8. Bake at 385° for approximately 35 minutes. Watch for excessive browning.

*Note: If raisins are to be added with cinnamon sugar mixture, make sure raisins are conditioned and drained.*



# ENGLISH MUFFIN BREAD

	10 LOAVES	6 LOAVES
Evaporated Milk (120°-130°F)	2.50 #	1.50 #
Hot Water (120°-130°F)	3.40 #	2.05 #
King Arthur Special Flour	8.00 #	4.00 #
Instant Yeast*	0.09 #	0.06 #
Sugar	0.15 #	0.09 #
Salt	2 TBL	1 TBL & 1 tsp
Baking Soda	1 TBL	2 tsp

*\*When using fresh yeast, multiply instant yeast amounts by factor of three.*

1. Combine evaporated milk and hot water in pitcher.
2. Combine flour, yeast, sugar, salt and baking soda in mixer.
3. Add liquid to flour mixture. Mix for 2-4 minutes on 1st speed. DO NOT KNEAD.
4. Turn onto table. Divide and scale at 1# 6 oz. (For hamburger buns, scale at 0.25.)
5. After scaling, cover with plastic and let rest 5-10 minutes.
6. Shape and place into 1# pans.
7. Sprinkle top of dough with cornmeal.
8. Place in proofer for about 30 minutes, or until dough is just over top of pans.
9. Bake at 375° for 20-25 minutes.



# CHOCOLATE CHIP OATMEAL COOKIE

## OVERALL FORMULA

Brown sugar	4# 2 oz
-------------	---------

Butter	1# 8 oz
--------	---------

Cake shortening	1# 5 oz
-----------------	---------

Vanilla	1 1/2 oz
---------	----------

### **Cream in mixer bowl.**

Whole eggs	1# 2 oz
------------	---------

### **Add slowly to mixer bowl.**

Grated orange rinds	6# 2 oz
---------------------	---------

KA Special	1# 9 1/2 oz
------------	-------------

Roll oats	2# 9 3/4 oz
-----------	-------------

### **Add and mix to incorporate.**

Semi-sweet choc. drops	5# 4 oz
------------------------	---------

### **Add last and just mix to incorporate.**

1. Drop cookies onto well greased sheet pan. Bake at 350°F for 12 -15 minutes.



# SPRITZ COOKIES

## OVERALL FORMULA

Sugar	2# 8 oz
Butter	2# 8 oz
Shortening	1# 6 oz
Salt	0.5 oz
Vanilla	1 oz

**Cream together in mixer bowl until just smooth.**

Eggs	9 oz
Milk	9 oz

**At room temperature. Slowly add. Scrape down the bowl.**

KA Sir Galahad (sifted)	5# 8 oz
Milk powder (sifted)	3 oz

**Add and blend until just smooth.**

1. Once batter has been made, prepare a sheet pan with parchment and fill a pastry bag with a #5 star tip.
2. Pipe out cookie dough into small rosettes, or any desirable shape. Garnish with candied fruit, nuts, jams, etc.
3. Bake at 350F until golden brown – approximately 15 minutes. Remove cookies from oven and cool on wire rack. Store in air tight container.



# DUBLIN SCONES

## OVERALL FORMULA

KA Sir Galahad	5# 3 oz
Sugar	1# 3 oz
Baking powder	5 oz
Salt	0.3 oz

**Place into 20 qt bowl with paddle, blend together.**

Butter, diced, not quite cold	1# 3 oz
-------------------------------	---------

**Add butter to bowl, mix until it is the size of small peas.**

Eggs, whisked	5# 3 oz.
---------------	----------

**Add to bowl, then add:**

Buttermilk	2 qts
------------	-------

**Add to bowl, and mix until it just comes together so that it stays tender.**

**Yield: Approx. 5 doz @ 3.2 oz**

1. To this recipe you can add currants, dried apricots, tart cherries, or just about any combination you can come up with.  
Add approx. 15 oz to the above batch.
2. Bake approximately 12 minutes at 425°F – 450°F.
3. Scones can be portioned out ahead of time and frozen on sheet pans. Night before they are needed take out frozen scone portions. Line sheet pan with parchment, and place scones on pan.
4. Leave in cooler overnight. In the morning allow to warm slightly and then bake.



# CHALLAH

## BAKER'S %

OVERALL FORMULA		
Sir Galahad	15.5#	67.00%
Sir Lancelot	7.6#	33.00%
Water	7.4#	32.00%
Salt	0.4#	1.90%
Yeast	0.6#	2.50%
Yolks	1.7#	7.50%
Eggs, whole	3.2#	14.00%
Sugar	1.3#	5.50%
Oil	1.7#	7.50%
<b>TOTAL</b>	<b>39.6#</b>	

1. Add all the ingredients to the mixer bowl. Mix 1 to 2 minutes on 1st speed to incorporate ingredients.
2. Then increase to 2nd speed and mix 5 to 7 additional minutes. The dough should be soft and pliable.
3. Place dough in bins and allow to rise 45 minutes to 1 hour. Scale into 1# 3 oz pieces (or any appropriate size to fit intended project).  
Round dough and let rest for 10 – 15 minutes.
4. Mold the dough to fit into loaf pans. Allow final rise for 30-45 minutes. Brush with a mixture of whole eggs mixed with a small amount of milk or water.
5. Bake at 400°F for 20-25 minutes.

*There are many final outcomes for this dough including braids, roll, topped with poppy seeds, etc.*



# WHITE WHEAT BREAD

		BAKER'S %
<b>OVERALL FORMULA</b>		
100% White Whole Wheat	16.3#	75.0%
Sir Galahad	5.4#	25.0%
Water	17.4#	80.0%
Salt	0.4#	20.0%
Yeast, compressed	0.4#	2.0%
<b>TOTAL</b>	<b>40.0#</b>	<b>184.0%</b>

1. Place all of the ingredients in the mixer. Mix on 1st speed for 2 minutes to incorporated. Then mix on 2nd speed 2-3 minutes or until fully developed.
2. Place the dough in bins and allow to rise 1 hour, fold, and then allow to rise another hour. Scale into 1 1/2 # pieces, pre-shape into rounds and place on floured boards. Or scale into 1# 3oz pieces for pan-loaves.
3. Shape into final form. Allow to fully rise then bake in 450F oven.
4. As with any bread formula, the procedure can be altered to accommodate bakery conditions. However, this formula as it is, is a great starting place for a quick, full flavored wheat bread to add to your daily offerings.

*As your customers become aware of the fact that whole grains must become a more significant part of their daily diet they also may struggle with the fact that they do not fully enjoy the taste and texture of a traditional 100% whole wheat bread. This formula contains King Arthur 100% White Whole Wheat which has a lighter color and sweeter taste than traditional whole wheat flours. The inclusion of Sir Galahad lightens the loaf and makes it appealing to a wide range of tastes.*



# ORGANIC BAGUETTE WITH POOLISH

BAKER'S %

## POOLISH

KA Organic Artisan	11.0#	100%
Water	11.0#	100%
Yeast, compressed	0.0#	0.20%

## FINAL DOUGH

Organic Artisan	22.0#	100%
Water	11.4#	52%
Salt	0.7#	3%
Yeast, compressed	0.4#	2%
Poolish	22.0#	100%

## OVERALL FORMULA

Organic Artisan	33.0#	100%
Water	22.4#	68.00%
Salt	0.7#	2.00%
Yeast, compressed	0.5#	1.40%
Yield	56.6#	

1. Poolish is set by blending flour, water, and yeast. Cover and allow to rest at 70°F for 14-16 hours.
2. Mix the final dough. In a spiral mixer: 2-3 minutes on 1st speed and 2-3 min on 2nd speed. Desired dough temperature: 76-78°F
3. Bulk fermentation of 2 hours, with a fold after 1 hour.
4. Scale 14 oz pieces for baguettes; 7# press for 3 oz French rolls.
5. Preshape and relax 20-30 minutes, covered.
6. Shape and final proof at 75°F. Take care not to over proof.
7. Bake at 435°F (225C) for approximately 23-25 minutes. Presteam oven and give additional steam of 2-3 seconds.

*Increasingly, people are demanding products made with organic ingredients. This French bread is an easy first step in meeting that demand. With this simple formula the only ingredient that needs to be organic is the flour. King Arthur's Organic Artisan flour is certified 100% Organic by Oregon Tilth. If you wish, this formula can be used with Sir Galahad flour. In that case reduce the hydration of the final dough by 2%.*

*If you are concerned about cost consider this. Producing the above dough using conventional ingredients the approximate ingredient cost is \$0.10/loaf. Using organic flour increases your per unit cost to only \$0.19/loaf. So at most you have to increase your prices 9 cents per loaf. However, organic breads command a premium price and it is not unrealistic to assume you could increase your prices \$0.25 - \$0.50/loaf. Thus, you have not only added a new "in demand" item but it is more profitable as well.*