KUALITAS BATU BATA MERAH DENGAN PENAMBAHAN SERBUK GERGAJI

Sri Handayani
'ur sr anTJeki TJp $FJ ni r ,UhaJeki T$FJv T$Nksa$haJg kmks$p k(nsnTmJEv g g) pKJ
Gn(I r aJv TTkaJd 4J) 5FJp ki nsnTFJd r Tr TmI nU$Fp k(nsnTmJ0299: J

Abstract: *This study is an experiment that will test the quality of red brick with the addition of a mixture of sawdust waste. Sawdust is a waste of a normal sawmills saws tool generated from both manual and mechanical chainsaw. The variable in this study are the standard of quality red bricks covering the outside view (shape, color), weight, size, compressive strength, content of salt and water absorption and weight of the contents. Basic materials taken from the agricultural land/garden which is less productive in the Village of Karanganyar District Adipala Regency of Cilacap. The results showed that the addition of sawdust, 10% showed no significant differences with bricks without the addition of sawdust (0%). Similarly, the heavy brick, a mixture of 10% will result in heavy brick lighter. Judging from the rift, a mixture of 10% does not happen cracks (0%) is more advantageous than a mixture of 0% obtained by cracking of 30%. The implications of this result is the addition of 10% sawdust bricks which will result in lighter weight, and can improve productivity because its rift is 0% but will give strength did not differ significantly with no mix. Therefore sawdust as waste sawmills can be used as an ingredient in the manufacture of bricks mixed with a percentage increase of 10%.*
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Key words: *brick quality, clay, sawdust*

AbstrakPJy kTk,$$nTJSTS(ksr I ni nTJI kTk,$$nTJki al ks$ kTJj nTmJni nTJ(kTmr bSi r n,$haJhnU JhnUhJ (ksncJ4kTmnTJI kTn(hncnTJ.n(I r snTJ,$ hncJakshr i Jmksmnb$Vp kshr i Jmksmnb$(ksr I ni nTJ,$ hncJ 4nsSI kTmmksmnb$nTJ nj r Jj nTmJh$anJ4$naS nTJ4nsSh,nUmksmnb$hn$ Jmksmnb$(nTr n,J(nr I r TJmksmnb$ (kaSTVJwns$hk,J4n,n(JI kTk,$$nTJSTSn4n,ncJaUhT4nsJi r n,$haJhnU JhnUhJ(ksncJj nTmJ(k,$r U$ I nT4nTmnTJ,r nsJEhkTUi FJ onsTnKFJhksnUFJr i r snTFJi r nUJUki nTFJi nT4r TmnTJi n4nsJmnsn(J4nTJ I kTj ksnI nTJnSJ4nTJhBhBUJSaSJ/ ncnTJ4nansJ4$n(hSJ4nsSUhTncJ,ncnTJi khr TJI ksUhT$nTfi khr TJj nTmJ i r snTmJI sB4r i U$D4SJAkanJGnsnTmnTj nsJGk.n(nUhTJC4$n,nJGnhr I nUkTJHSh.nI VJ1naSJI kTk,$$nTJ (kTr Tbr i i nTJhnconJI kTn(hncnTJakshr i Jmksmnb$%23 JU$ni J(kTr Tbr i i nTJI kshk4nnTJj nTmJ a$nT$$nTJ4kTmnTJhnU JhnUhJUhTI nJ kTn(hncnTJakshr i Jmksmnb$E23 KVJAk($$nTJ r ,nJ4ns$hksnUJhnUJ hnUhFJ.n(I r snTJ%23 Jhi nTJ(kTmcnaS nTJhksnUJhnU JhnUhJj nTmJ,kh$cJsSTmnTVJA$$Tbnr J4nsSI kskUhi nTFJ .n(I r snTJ%23 JU$ni JUksbn4SI kskUhi nTJE23 KJ,kh$cJ(kTmr TUTmi nTJ4$nT4STmi nTJ4kTmnTJ.n(I r snTJ 23 JU4$ ksB,kcJi kskUhi nTJakhkansJI 23 VJQI ,$naS4nsScnaSJSTSh4n,ncJI kTn(hncnTJakshr i Jmksmnb$ %23 Jni nTJ(kTmcnaS nTJhnUJhnUhJj nTmJ,kh$cJsSTmnTJhksnUTj nFJ4nTJ(n(I r J(kTSTmi nUhTJ I sB4r i U$$haJi nskTnJi kskUhi nTTj nJ23 JJUkUhI Sni nTJ(k(hks$nTJi ki r nUhTJj nTmJU$ni Jhkshk4nJ ak.nsnJa$nT$$nTJ4kTmnTJ UhTI nJ.n(I r snTVJ ; ,kcJi nskTnJ$UJakshr i Jmksmnb$akhnmnSI ,$ hncJ I kTmmksmnb$nTJi nj r J4nI nUJ4$ nTDnUnTJakhnmnShncnTJ.n(I r snTJ4n,n(JI k(hr nUhTJhnUJhnUhJ 4kTmnTJ sBakTUhakJ kTn(hncnTJ%23 VJ
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Kata kunciJPr n,$haJhnUJhnUhFJUhTncJ,$nUFJakshr i Jmksmnb$
J

PENDAHULUAN

JGkhr UcnTJ ni nTJ I ksr(ncnTJ 4nI nUJ UksI kTr cSJ 4kTmnTJ (kTj k4$ni nTJ hncnTJ hnTmr TnTJj nTmJ(k(kTr cSI ksaj nsnUhTJUki T$aFJ (r 4ncJ4$nI nUFJ4nTJcnsnmnTj nJ(r sncJakcSTmnmJ 4nI nUJ4$nTmi nr JB,kcJ(naj nsni nUJ,r naJUksr Uh(nJ hnm$(kski nJj nTmJhksI kTmcnaSnTJ(kTkTmncJ kJ hno ncVJ/ ncnTJhnTmr TnTJj n$J ak(r nJhncnTJ B,ncnTJj nTmJ(k(I r Tj nShkTUi JhksnUsnTJ4nTJ r i r snTJUksUkTUJj nTmJ4$nr Tni nTJakhnmnShncnTJ r TUi J(k(hr nUJ k,k(kTJ hnTmr TnTVJ) ,k(kTJ hnTmr TnTJ(ksr I ni nTJar nUJhnm$nTJD TmaS$Tn,J 4nsSar nUJhnTmr TnTJj nTmJUkshr nUJ4nsShncnTJ hnTmr TnTJ4nTJnUhr Ji B(I BTkTJhnTmr TnTJj nTmJ (ksr I ni nTJhnm$nTJ4nsSar nUJhnTmr TnTFJakI ksU$,nTUh$FhUhI FJ(nr I r TJ4ST4STmVJ

AST4STmJ(ksr I ni nTJan,ncJanUrJaUsr i UrsJ hnTmr TnTJ j nTmJ hksDTmaSI r TUri J (k,ST4r TmSI I kTmcr TSI 4nsSI aksnTmnTJ ckonTJ hr naFJ nTmSTFJ I nTnaJ (nUhcnsSI (nr I r TJ cr bnTVJ yk(hr nUhTJ 4ST4STmJ hSnanTj nJ (kTmmr Tni nTJ hnUrJ hnUhJ (ksncFJ hnUhi BFJ I nI nTFJ nUhr J UsS$,ki VJ AST4STmJ I nanTmnTJhnUrJhnUhJ(ksncJn4n,ncJhncnTJj nTmJ I n,STmJhnTj ni J4Snr Tni nTJakhnmnSI 4ST4STmJ,r nsJ hnTmr TnTJ nUhr J 4ST4STmJ I k(hnUhaJ J nTUhsnJ sr nTmnTJj nTmJanUrJ4kTmnTJ,nSTj nVJ/ nUrJhnUhJ (ksncJ n4n,ncJ hnUrJ hr nUhTJj nTmJ UkshrnUJ4nsSI UhTncJ,SnUJ4kTmnTJnUhr JUhTI nJhncnTJ. n(I r snTFJ 4$ ksSTmi nTJ 4kTmnTJ 4$k(r sJ hkhksnI nJ cnsSI i k(r 4SnTJ4$nni nsJ I n4nJUk(I ksnUrsJUSTmnScSTmmnJ (kTmksnaJ4nTJUS4ni JcnT. r sJhS,nJ4SkT4n(J4n,n(J nSVJ

/ ncnTJ(kTUhcJr TUri J(k(hr nUJhnUrJhnUhJ (ksncJhSanJ(kTmmr Tni nTJhncnTJ. n(I r snTJ4nTJ UhTI nJhncnTJ. n(I r snTJUksmnTUrTmJ4nsSI kn4nnTJ UhTncJ,SnUJj nTmJ4$ ni nSVJ/ ncnTJ. n(I r snTJj nTmJ aksSTmJ 4$ ni nSFJ akI ksUSI I naSsJ j nTmJ hksDTmaSI r TUri J (kTmr snTmSI I kTj r ar UhTJ 4nTJ (k(I ks(r 4ncJ I kTmksSTmnT-J nhr J aki n(J 4nTJ aki n(J I n4SI akhnmnSI I k(hkTUri J I BsSI BsSI 4nTJ (k(I ksi r nUJ r nUJhsS fUki nTJhnUhJ(ksncVJ

TINJAUAN PUSTAKA

Batu Bata Merah

/ nUrJ hnUhJ (ksncJ n4n,ncJ ar nUrJ r Tar sJ hnTmr TnTJ j nTmJ 4$ ksmr Tni nTJ 4n,n(JJ I k(hr nUhTJ BTaUsr i aShnTmr TnTJ4nTJ4Shr nUJ4nsSI UhTncJ 4kTmnTJ nUhr J UhTI nJ . n(I r snTJ hncnT7 hncnTJ,nSTFJ4Snni nsJ. r i r I JUSTmnSFJcSTmmnJUS4ni J 4nI nUJcnT. r sJ,nmSJhS,nJ4SkT4n(J4n,n(JnSsJEg O7 %2FJ% 8zKVJ/ nUrJhnUhJ(ksncJ(ksr I ni nTJhnmSnTJ hnTmr TnTJ j nTmJ 4Snr Tni nTJ r TUri J (k(hr nUJ ar nUrJ hnTmr TnTVJ / ncnTJ hnTmr TnTJ r TUri J (k(hr nUJhnUrJhnUhJ(ksncJhksnan,J4nsSJUhTncJ ,SnUJ4kTmnTJnUhr JUhTI nJ. n(I r snTJhncnT7hncnTJ ,nSTJj nTmJi k(r 4SnTJ4$nni nsJ I n4nJar cr JUSTmnSI cSTmmnJUS4ni J4nI nUJcnT. r sJ,nmShI nhS,nJ4SkT4n(J 4S4n,n(JhSsJEp O7229%78zKVJ

J enTncJ ,SnUJ (ksr I ni nTJ hncnTJ 4nansJ 4n,n(J I k(hr nUhTJ hnUrJ hnUhJ (ksncJ j nTmJ (k(S,S SI aSDnUJ I ,naUSaJ 4nTJ ar ar UJ i ksSTmVJ p SDnUJ I ,naUSaJ I n4nJ UhTncJ ,SnUJ anTmnUJ I kTUSTmJ r TUri J (k(I ks(r 4ncJ4n,n(JI sBakaJnon,JI k(hr nUhTJ hnUrJhnUhJ(ksncVJCI nhS,nJUhTncJ,SnUJj nTmJ4$ ni nSU Uks,n,r JI ,naUSaFJ(ni nJni nTJ(kTmni SnnUi nTJhnUrJ hnUhJ (ksncJ j nTmJ 4SnkTUri J (k(I r Tj nSI aSDnUJ i ki r nUhTJ i ksSTmJ j nTmJ USTmnSI akcSTmmnJ ni nTJ (k(I kTmnsr cSI i ki r nUhTFJ I kTj r ar UhTFJ 4nTJ (k(I kTmnsr cSI cnaS,J I k(hni nsnTJ hnUrJ hnUhJ (ksncJ nTmJar 4ncJn4SVJ

enTncJ ,SnUJ j nTmJ 4Snni nsJ ni nTJ (kTmn,n(SI I ksr hncnTJ onsTnJ akar nSI 4kTmnTJ WnUWnUJ j nTmJ Uksi nT4r TmJ 4S4n,n(Tj nVJ x nsTnJ UhTncJ ,SnUJ hks(n. n(7(n. n(J UksmnTUrTmJ 4nsSI BLS47BLS4J,Bmn(Jj nTmJUksi nT4r TmJ4n,n(JUhTncJ ,SnUFJakI ksUSn,r (r TS (FJhkaSFJi nshBTFJ(nTmnnTFJ (nr I r TJ i n,aS (VJ pkTj non7akTj nonJ hkaSI (kTmcnaS,nTJ onsTnJ i sk(FJ i r TSTmFJ (ksncFJ cSh(FJ4nTJ. Bi ,nUVMS BTSUJ(ksr I ni nTJakTj nonJ hkaSI j nTmJanTmnUJr (r (J(kTmcnaS,nTJonsTnJ i sk(FJi r TSTmJ 4nTJ. Bi ,nUVpk4nTmi nTJck(nUSJ ni nTJ(k(hksS nTJonsTnJ(ksncJI n4nJUhTncJ,SnUVJ pkTj nonJ hkaSI aS,S nUJ (k(hksSI onsTnJ cSnr FJ akTj nonJ(nTmnnTJ(kTmcnaS,nTJonsTnJ. Bi ,nUFJ 4nTJakTj nonJi nshBTJ(k(hksS nTJonsTnJhSr FJ nhr 7nhr FJcSnr FJnUhr J. Bi ,nUVy ksr hncnTJonsTnJ hnUrJhnUhJ(ksncJ4nsSi kn4nnTJ(kTUhcJan(I nSI akUk,ncJ 4Snni nsJ hSnanTj nJ ar ,SUJ 4$ naUS nTVJ / ksS r UJUhhk,JI ksi SnnTJI ksr hncnTJonsTnJUhTncJ ,SnUJ (kTUhcJ akUk,ncJ I sBakaJ I k(hni nsnTJ E1 nsUBTBFJ% z8PJ95KJ

Tabel 1. yksi $nnTJ I ksr hncnTJ onsTnJ UhTncJ ,$hUJ akUt,ncJ sBakaJ k(hni nsnTJ

x nsTnJuhTncJ,$hUJ (kTUhcJ	Gk(r Tmi SnTJ ksr hncnTJ onsTnJakUt,ncJ4$ni nsJ
%\6 ksncJ	6 ksncJhUhr J Bi ,nUJ
9\Gr TSTmUd nJ J	Gr TSTmUd nFJ Bi ,nUEhUhr J (ksncJ
I \HBi ,nUJ	6 ksncJhUhr J Bi ,nUJ
5\yr U$J	yr U$JhUhr J r U$J ki r TSTmnTJ
0\Chr 7hhr JhUhr JcSh(J J	6 ksncFJ r TSTmUd nFJhUhr J I r U$J
=\I $hr J	6 ksncJ
8\6 ksncFJ r TSTmFJ nhr 7hhr JUd nJ	yksUh(nJ(ksncJn,r J sk(FJ i r TSTmUd nJhUhr J r TSTmJ i kc$hr nTJ n4nJannUJ (k,khr sJ

enTncJ ,$hUJ 4SJ Gk.n(nUhTJ C4$n,nJ GnhrI nUtTJH$h.nI J(ksrI ni nTJtkTSaJUhTncJ,$hUJ ,k(I r TmJ jnTmJ hksonsTnJ c$h(J i k.Bi ,nUhTVJ ykTmsnbSTJhnUd JhnUhJ(ksncJ4SAkanJGnsnTmnTj nsJ Gk.n(nUhTJ C4$n,nJ GnhrI nUtTJ H$h.nI J I n4nJ r(r(Tj nJ(kTmmr Tni nTJ.n(I r snTJaki n(J n4$FJ nhr J aki n(J I n4SJ 4nTJ I naSVJ ykTk,$$hTJ STSJ (kT.BhnJ (kTmmr Tni nTJ ,$ hncJ 4nsSJ I kTmmksmnb$hTJ nj r J n$hUJaksh r i JmksmnbSakhnmnSJ I kTmmnTU$.n(I r snTJj nTmJar 4ncJn4nVJpkshr i J mksmnbSI(ksrI ni nTJ,$ hncJ4nsSJ I kTmmksmnb$hTJ i nj r Jj nTmJh$hanJ4$naS nTJ4nsSh,nUmksmnbShn$JJ mksmnbS(nTr n,J(nrI r TJmksmnbS(kaSTVJpkshr i J mksmnbSJ r TUd i J aki nsnTmJ STSJ hk,r(J hnTj ni J 4$ nTDnnUnTJakhnmnShncnTJhnTmr TnTVJpkshr i J mksmnbSaksSTmJ4SnTmmnI Jan(I ncJnUhr J,$ hncJJ 4nsSJ I kTmmksmnb$hTJ i nj r VJ / $hanTj nJ akshr i J mksmnbSSTSJ4$hr nTmJanbnJ,n,r J4$ni nsJnUhr JB,kcJ (naj nsni nUJ 4$h4$nTJ hncnTJ hni nsJ I kTmmnTU$ i nj r Jhni nsVJ

/ ncnTJ .n(I r snTJ 4n,n(J I k(hr nUhTJ hnUd JhnUhJ(ksncJ4$mr Tni nTJr TUd i J(k(I kshn$$$J i r n,$haJUhTncJ,$hUJnUhr JhncnTJI kTB,BTmJj nTmJ ni nTJ4$h4$nTJakhnmnShncnTJ(kTUhcJar I nj nJ (kTbn4ShncnTJj nTmJ ,naU$VJ ncnTJ(kTUhcJhnUd J hnUhJ(ksncJ Uts4$SJ 4nsSJ hncnTJ 4nansJ hksr I nJ UhTncJ ,$hUJ 4kTmnTJ nUhr J UhTI nJ (kTmmr Tni nTJ hncnTJ.n(I r snTVJ ncnT7hncnTJ.n(I r snTJj nTmJ h$hanJ4$mr Tni nTJakI ksU$nhr Jaki n(FJI naSFJ4nTJ aki n(J I n4SVJpk4nTmi nTJhncnTJ.n(I r snTJj nTmJ 4$mr Tni nTJ4n,n(J I kTk,$$hTJ STSJn4n,ncJakshr i J mksmnbSi nskTnJhkshr U$JcJn,r aJ4nTJ(r 4ncJr TUd i J 4$4nI nUVJ

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Pembuatan Batu Bata Merah

HnsnJ I k(hr nUhTJ 4nTJ n,nUJ j nTmJ 4$mr Tni nTJB,kcJI nsnJI kTmsnbSTJhnUd JhnUhJ(ksncJ ni nTJ(k(I kTmnsr cSi r n,$haJhnUd JhnUhJ(ksncVJ yk(hr nUhTJhnUd JhnUhJ(ksncJJj nTmJ4$hi r i nTJ I nsnJ I kTmsnbSTJ hnUd J hnUhJ (ksncJ 4SJ AkanJ GnsnTmnTj nsJ Gk.n(nUhTJ C4$n,nJ GnhrI nUtTJ H$h.nI J 4kTmnTJ.nsnJak4kscnTnJE$n4$a$$Tn,KVJ ysBakaJI k(hr nUhTJ hnUd J hnUhJ (ksncJ (k,n,r SJ hkhksnI nJUhcnI nTFJ(k,$r U$I kTmmn,$hTJhncnTJ (kTUhcFJ I kTmB,ncnTJ hncnTFJ I k(hkTUd i nTFJ I kTmksSTmnTFJ I k(hni nsnTFJ I kT4TmTnTJ 4nTJ I k($$nTJak,ki a$VJ

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Kualitas Batu Bata Merah

ykTmr b$hTJJUtscn4nI Ji r n,$haJhnUd JhnUhJ (ksncJ4kTmnTJ.n(I r snTJakshr i JmksmnbScnsr aJ (k(kTr cSJ aj nsnU7aj nsnUJ hnUd J hnUhJ (ksncVJ C4nI r TJaj nsnU7aj nsnUJhnUd JhnUhJ(ksncJ4n,n(J g O7%2P% 8zJ 4nTJ pOO229%78zJ n4n,ncJ akhnmnSJ hks$r UVJ

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Pandangan Luar.

/ nUd J hnUhJ cnsr aJ (k(I r Tj nSJ sr ar i 7 sr ar i Jj nTmJUhbn(J4nTJa$r FJh$4nTmJa$STj nJcnsr aJ 4nUhsFJ U$4ni J (kTr Thr i nTJ skUhi 7skUhi J 4nTJ I ksr hncnTJhkTUd i Jj nTmJhks,kh$nTFJU$4ni J(r 4ncJ cnT.r sJ nUhr J I nUhcFJ onsTnTj nJ aksnmn(FJ 4nTJ hkshr Tj STj nsSTmJh$hJ4$r i r ,VJ

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Ukuran-ukuran

vi r snT7r i r snTJ hnUd J hnUhJ (ksncJ 4$tkTUd i nTJ 4nTJ 4STj nUhi nTJ 4n,n(J I ksbnTh$hTJ nTUhsnJ Ik(hk,SJ 4nTJ IkTbn,J Ek(hrnUKJ pk4nTmi nTJ rirsnTJ hnUJ hnUhJ (ksncJ jnTmJ aUhT4nsJJ(kTrsrUJg CP%2FJ% 8zPJ=Jj nSJ JhnUJ JhnUhJ (ksncJ4kTmnTJ I nTbnTmJ952J((-J,khnsJ%8%0J((-J Ukhn,J 09J((FJ 4nTJ hnUJ hnUhJ (ksncJ 4kTmnTJ I nTbnTmJ9I 2J((-J,khnsJ%8%2J((-JUkhn,J02J((VJ pk4nTmi nTJ aUhT4nsJ rirsnTJ hnUJ hnUhJ (ksncJ (kTrsrUJp CO229%78zJ nTmJUks,SnUJ n4nJUhk,J9VJ

Tabel 2. J 6 B4r,Jp UhT4nsJ virsnTJ/ nUJ/ nUhJ6 ksncJ akar nS4kTmnTJp CO229%78zJ

6 B4r,J	ekhn,J E((KJ	MkhnsJ E((KJ	ynTbnTmJ E((KJ
6 7OnJ	=0J	: 2J	% 2J
6 7OhJ	=0J	%52J	% 2J
6 7=J	02J	%82J	992J

pr(hksRJp CO229%78zJ

ykTj$ I nTmnTJrirsnTJ(nia$ r(JhnUJ hnUhJ(ksncJj nTmJ4$ kshB,kci nTJ4n,n(Jp CO229%7 8zFJh4n,ncJakhnmnShks$ rUPJ

Tabel 3. J AnDhsJJykTj$ I nTmnTJvirsnTJ6 nia$ r(J / nUJ/ nUhJ6 ksncJakar nS4kTmnTJp CO229%7 8zJ

Gk,naJ	ykTj$ I nTmnTJvirsnTJ6 nia$ r(JE((KJ					
	6 7OnJ4nTJ6 7OhJ			6 7=J		
	ekhn,J	MkhnsJ	ynTbnTmJ	ekhn,J	MkhnsJ	ynTbnTmJ
90J	9J	I J	0J	9J	I J	0J
02J	9J	I J	0J	9J	I J	0J
%22J	9J	I J	5J	9J	I J	5J
%02J	9J	9J	5J	9J	9J	5J
922J	9J	9J	5J	9J	9J	5J
902J	9J	9J	5J	9J	9J	5J

pr(hksRJp CO229%78zJ

ykTj$ I nTmnTJ rirsnTJ aUhT4nsJ hnUJ hnUhJ(ksncJUkshkansJj nTmJ4$ kshB,kci nTJ4n,n(J g CP%278zFJj nSJ JI 3 JrTUi JI nTbnTmJ(nia$ r(-J ,khnsJ(nia$ r(J53 -J4nTJUkhn,J(nia$ r(J03 VJ pk4nTmi nTJ ak,SaSJ nTUhsnJ hnUJ hnUhJ (ksncJ hksrirsnTJ(nia$ r(J4kTmnTJhnUJ hnUhJ(ksncJ hksrirsnTJ(ST$ r(Jj nTmJ4$ kshB,kci nTFJj nSJ J rTUi JI nTbnTmJ%2J((FJ,khnsJ0J((FJ4nTJUkhn,J5J ((VJ

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Daya Serap Air dan Bobot Isi

AnjnJ aksnI J nSJ n4n,ncJ ik(n(I rnTJ hncnTJ4n,n(J(kTjksnI JnSJE4njnJcSnI KJ/ BhBUJ SaSn4n,ncJI kshnT4STmnTJhksnUJ4n,n(Jikn4nnTJ iksSTmJ4kTmnTJhBhBUJ4n,n(Ji BT4SaSJkTrcJnSVJ AnjnJaksnI JnSJj nTmJUSTmnSni nTJhksI kTmnsrcJ I n4nJ Ik(nanTmnTJ hnUJ hnUhJ 4nTJ n4rinTJ inskTnJnSJ n4nJn4rinTJnin TJ4SakknI JB,kcJhnUJ hnUhJakcSTTmnJI kTmksnaJn4rinTJU4ni JhksDTmaSJ 4nTJ 4nI nUJ (kTmni$ nUnTJ irnUJ n4rinTJ ((kTbn4SJ ,k(ncVJ AnjnJ aksnI J jnTmJ USTmnSJ 4SakhnhinTJB,kcJhkansTjnJin4nsJBsSJ n4nJhnUJ hnUhJEhnUJ hnUhJU4ni J n4nUKVJ

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Kuat Tekan

Gr n,SUhaJhnUJ hnUhJ(ksncJ4nI nUJ4$ nnmSJ nUhaJU$ mJUSTmi nUhTJ4n,n(Jcn,JirnUJUki nTJ4nTJ I kTj$ I nTmnTJrirsnTJ(kTrsrUJg CP%2FJ% 8zP=FJ jnSJ J

nVJ/ nUJ hnUhJ(ksncJ(rUJUSTmi nUJO4kTmnTJirnUJ Uki nTJsnUh7snUhJ,kh$ JhkansJ4nsSJ%22Ji mf.([9J] 4nTJrirsnTTjnJU4ni Jh4nJjnTmJ(kTj$ I nTmVJ

hVJ/ nUJ hnUhJ(ksncJJ(rUJUSTmi nUJOO4kTmnTJirnUJ Uki nTJsnUh7snUhJnTUhsnJ%22Ji mf.([9J]an(I nSz2J i mf.([9J] 4nTJrirsnTTjnJjnTmJ(kTj$ I nTmJ anUJhr ncJ4nsSakI r,r cJhkT4nJ ks. BhnnTVJ

.VJ/ nUJ hnUhJ(ksncJ(rUJUSTmi nUJOOO4kTmnTJirnUJ Uki nTJsnUh7snUhJnTUhsnJz2Ji mf.([9]Jan(I nS=2J i mf.([9]J 4nTJrirsnTTjnJ(kTj$ I nTmJ 4rnJ hr ncJ4nsSakI r,r cJhkT4nJ ks. BhnnTVJJ

pk4nTmi nTJirnUJUki nTJ(kTrsrUJp UhT4nsJ OT4r aUSOT4BTkaSJEp OKUJcrTJ% 8zJUks,SnUJ n4nJ Uhk,J5FJakhnmnShks$ rUJ

Tabel 4. J Gr nUJeki nTJ4nTJGBkDSSTJwnsSaS/ nUJ/ nUhJ 6 ksncJ nTmJA$SSTi nTJp CO229%78zJ

Gk,naJ	Gr nUJUki nTJsnUh7snUhJ (ST$ r(J4nsSJ 2Jhr ncJhnUJ hnUhJ(ksncJ nTmJ4$ bSJ		GBkDSSTJ NnsSaSJ nTmJ 4SSTi nTJ4nsSJ snUh7snUhJ rnUJ Uki nTJE3 KJ
	Gmf.([9J]	gf(([9J]	
90J	90J	9F0J	90J
02J	02J	0F2J	99J
%22J	%22J	%2F2J	99J
%02J	%02J	%0F2J	%0J
922J	922J	92F2J	%0J
902J	902J	90F2J	%0J

Kadar Garam

Gr n,SshaJi n4nsJmnsn(J j nTmJi r snTmJ4nsSJ 023 J l ks(r i nnTJhnUr Jhn UhJ(ksncJUksUrUr l JB,kcJ ,nl SanTJ USSaJ hksonsTnJ l r USSJ i nskTnJ l kTmi sSaUh,nTJmnsn(7mnsn(J j nTmJ4nl nUJ,nsr UEJ US4ni J(k(hncnj ni nTJ4nTJJ023 JnUhr J,khSSJ4nsSJ l ks(r i nnTJ hnUr J hnUhJ (ksncJ UksUrUr l J B,kcJ ,nl SanTJ l r USSJ j nTmJ nmni J Ukhn,J i nskTnJ l kTmi sSaUh,nTJmnsn(7mnsn(J j nTmJ4nl nUJ,nsr UEJ UkUhl SJ4n,n(J l ks(r i nnTJhnUr JhnUhJ(ksncJUS4ni J (kTbn4SJhr hr i JnUhr JUks,kl naFJn4nJi k(r Tmi STnTJ (k(hncnj ni nTJ aksUhJ J hSnJ ,khSSJ 4nsSJ 023 J l ks(r i nnTJ hnUr J hnUhJ (ksncJ UksUrUr l J B,kcJ ,nl SanTJl r USSJ j nTmJUkhn,Ji nskTnJl kTmi sSaUh,nTJ mnsn(7mnsn(J j nTmJ 4nl nUJ ,nsr UJ 4nTJ hnmSnT7 hnmSnTJ 4nsSJ l ks(r i nnTJ hnUr J hnUhJ (ksncJ (kTbn4SJ hr hr i J nUhr J Uks,kl naFJ cn,J STSJ (k(hncnj ni nTVJ

J

Serbuk Gergaji

pkshr i JmksmnbSJ j nTmJ4Snr Tni nTJ4n,n(J l kTk,SSSnTJSTSJn4n,ncJakshr i J4nsSJmksmnbSJ(kaSTJ i nskTnJ (k(l r Tj nSJ hr USSnTJ i k.SJ akcSTmmnJ (r 4ncJr TUr i J4SB,ncJ4nTJ(r 4ncJ4S4nl nUVJpkshr i J mksmnbSJ r TUr i J aki nsnTmJ STSJ hk,r (J hnTj ni J 4$ nTDnUi nTJakhnmnSJhncnTJhncnTJhnTmr TnTFJ i nskTnJ4SnTmmnl JakhnmnSJ,$ hncfan(l ncVJy n4nJ r (r (Tj nJ kshr i J mksmnbSJ 4$ nTDnUi nTJ B,kcJ onsmnJaki SUhsJakhnmnSJhncnTJhni nsJl kTmmnTUSJ i nj r JnUhr J4Sni nsJhkmSUr JanbnVJJ

yk(nTDnUhTJ akshr i J mksmnbSJ 4n,n(J .n(l r snTJl sBakaJl k(hr nUhTJhnUr JhnUhJ(ksncJ n4n,ncJ akhnmnSJ hncnTJ l kTmmnTUSJ aki n(J l n4SnhrJaki n(Jl n4SVJpk,nSTJcnsmnTj nJ j nTmJ ,khSSJ ki BTB(SaJ hSnJ 4SnT4STmi nTJ 4kTmnTJ aki n(J n4SEJakshr i JmksmnbSJr mnJ(r 4ncJ4S4nl nUVJ y kTk,SSSnTJSTSJ4Sni r i nTJ4kTmnTJ(kTmmr Tni nTJ l ksakTUhakJ .n(l r snTJ akshr i J mksmnbSJ j nTmJ hkshk4n7hk4nVJ

METODE PENELITIAN

yk Tk,SSSnTJ STSJ (ksr l ni nTJ l kTk,SSSnTJ ki al ks$ kTJ j nTmJ ni nTJ(kTmr bSJ i r n,SshaJ hnUr J hnUhJ (ksncJ 4kTmnTJ l kTn(hncnTJ .n(l r snTJ ,$ hncJakshr i JmksmnbSVJy kTk,SSSnTJJ4Sni r i nTJ4SJ MhhBsnUBsS(J eki TSJ p$ SFJ t ni r ,UhaJ eki TSJ v TSNksaSShaJ g kmksSJpk(nsnTmVJwnsSnhk,J4n,n(J l kTk,SSSnTJSTSJn4n,ncJaUhT4nsJi r n,SshaJhnUr JhnUhJ (ksncJj nTmJ(k,$ r USl nT4nTmnTJ,r nsJEhkTUr i FJ o nsTnKFJhksnUEJr i r snTFJi r nUJUki nTFJi nT4r TmnTJ i n4nsJmnsn(J4nTJ kTj ksnl nTJhSJ4nTJhBhBUSaSVJ J

Bahan Penelitian

enTncJ MShUEJ J akhnmnSJ hncnTJ 4nansJ 4Sn(hSJ4nsSJUhTncJ,ncnTJi khr TfJ ksUhTSnTJj nTmJ i r snTmJ l sB4r i SDJ 4SJ AkanJ GnsnTmnTj nsJ Gk.n(nUhTJC4$ n,nJGnhr l nUkTJHSn. nl VJpkshr i J d ksmnbSFJakhnmnSJhncnTJ.n(l r snTJ4$ ksB,kcJ4nsSJ n(l naJ k(BUBTmnTJ nj r J4kTmnTJ(kTmmr Tni nTJ mksmnbSJ (kaSTJ j nTmJ Uks4nl nUJ 4SJ Uk(l nUJ l kTmmksmnbSnTJi nj r JakUk(l nUVJCSFJpki n(Jy n4SJ 4nTJ naSJ

Peralatan Penelitian

C,nUh,nUJ j nTmJ 4Snr Tni nTJ 4n,n(J l kTk,SSSnTJSTSEJnTUhsnJ,nSTJPJHkUhi nTJ/ nUr J/ nUhJ 6 ksncJ4kTmnTJr i r snTJ9l 2JLJ%/2JLJ02J((-J y kTmmsSaJp$ r -J6 kaSTJ v bSJ Gr nUJeki nTJj nTmJJ 4Snr Tni nTJr TUr i J(kTmkUhcr SJi r nUJUki nTJhnUr J hnUhJ(ksncJ4kTmnTJ(ksi J*Universalo Testing Machine*FJ*Indotest M.L-UTM-150* AQwJRJ2V0JBTVJ J

Pembuatan Benda Uji

encnl J l k(hr nUhTJ n4ri nTJ hnUr J hnUhJ (ksncFJj nSSJ(kT.n(l r si nTJUhTncJ,SnUJ4kTmnTJ l kTn(hncnTJ akshr i J mksmnbSJ 4nTJ nSJ ak.r i r l Tj nFJ cSTmmnJ (k(hkTUr i J .n(l r snTJ j nTmJcB(BmkTJ4kTmnTJl ksakTUhakJ.n(l r snTJ nTUhsnJakshr i JmksmnbS4nTJUhTncJ,SnUJakhkansJ23 FJ

%23 FJ923 J4nTJI 23 VJC4r i nTJ4$h$si nTJak,n(nJ %79JcnsS4nTJakhk,r (JhncnTJ kTj r ar TJhnUrJhnUhJ (ksncJ 4Sn(I rsJ Uks,khSJ Uks,khSJ 4ncr,r J (kTkTUri nTJ i khr UrcnTJ hncnTJ 4kTmnTJ I kshnT4SmnTJhksnUVJ

C4r i nTJj nTmJUk,ncJ4$ksn(Jak,n(nJ%79J cnsSI nUhr J ,khSJ 4SnTmi r ,FJ 4SThi 7SThi J an(hSJ 4$hksSI nSJ ak4$ $SJ 4k(SJ ak4$ $SJ cSTmmnJ (kTbn4S n4BTnTJj nTmJaShI J4Sk Uhi VJMkUhi nTJ kUhi nTJhnUrJ hnUhJ(ksncJI n4nJ,nTUhS4nansJI kT. kUhi nTJj nTmJ I ks(r i nnTj nJ 4nUhsVJ MhTUhS 4nansJI kT. kUhi nTJ 4$Uhr sSI naSJnmnsJ4n,n(J(kT. kUhi JhnUrJhnUhJ (ksncJj nTmJ(naSJhnancJU$ni J(kTk(I k,JI n4nJ ,nTUhS 4nansJ I kT. kUhi nTVJ 6 nar i nTJ hncnTJ (kTUhcJ UksakhrUJi k4n,n(J. kUhi nTJ hnUrJ hnUhJ (ksncJj nTmJUk,ncJ4$nancSnSFJan(hSJ4$Uki nT7 Uki nTJcSTmmnJ(kTmSSak,r sr cJhS4nTmJ. kUhi nTFJ akUk,ncJ hkTns7hkTnsJ I n4nUJ . kUhi nTJ hB,kcJ 4SkI naJhUhr J4$hTmi nUJ k,nT7I k,nTVJ1 naSJ. kUhi nTJ UksakhrUJ4$hksSI UhT4nJ akar nSI 4kTmnTJI sBI BsaS . n(I rsnTTj nVJJ

J naSJ. kUhi nTJ hnUrJ hnUhJ (ksncJj nTmJ (naSJ(kTUhcJ4$hTmS7hTmSI nTJak,n(nJi r snTmJ ,khSJ9J(STmmr JnmnsJi ksSTmVJ/ nUrJhnUhJ(ksncJ j nTmJ Uk,ncJ i ksSTmJ 4$ar ar TJ 4S Uk(I nUJ I k(hni nsnTJ hksr I nJ mr hr i J 4nsSI hn(hr J nUhr J 4Sn(ni nTJB,kcJo nsmnJakUk(I nUJ4kTmnTJSaU$hcJ eBhBTmVJ pr ar TnTJ hnUrJ hnUhJ (ksncJ akT4$S (ksr I ni nTJ akhr ncJ UrTmi r J j nTmJ 4$ar ar TJ hkshns$a7hns$aVJ y sBakaJI k(hni nsnTJ hnUrJ hnUhJ (ksncJ(kTmmr Tni nTJhncnTJhni nsJaki n(J n4SVJ

Pengujian Batu Bata Merah

y kTmr b$hTJ 4$hi r i nTJ 4kTmnTJ (kTmmr Tni nTJ %2J hr ncJ hkT4nJ r b$ U$hI J an(I k,Tj nFJj nTmJ(k,$r U$I kTmr b$hTJI nT4nTmnTJ ,r nsJ hksr I nJ hkTUri -J o nsTn-J hksnUFJ 4nTJi r nUJ Uki nThnUrJhnUhJ(ksncVJC4nI r TJ. nsnJI kTmr b$hTJ (kTr sr UJg C%2P% 8zFJakhnmnShks$r UJJ

%VJ y kTmr b$hTJI nT4nTmnTJ,r nsJhnUrJhnUhJ(ksncFJ (k,$r U$hkTUri FJb nsTnJ4nTJhksnUVJJ

9VJ y kTmr b$hTJvi r snTJ

I VJ Anj nJ pksnI J CSJ 4nTJ / BhBUJ GaSJ r TUri J (kTmcSUrTmJ 4nj nJ aksnI J 4nTJ hBhBUJ SaS 4$hr Tni nTJ ksan(nnTJakhnmnShks$r UVJ

JJJJJJy kTj ksnI nTJhS.RJ $\frac{b-a}{a}\ x100\%$ J

JJJJJJ' BhBUJaS JRJ $\frac{a}{b-a}\ Kg/dm^3$ JJ

5VJ y kTmr b$hTJGr nUJeki nTJ

0VJ y kTmr b$hTJGn4nsJI nsn(J

J

Analisa Data

Akai s$ U$DJy sBakTUhakFJ4$hr Tni nTJr TUri J (kT4kai sa nTJ i r n,$haJ hnUrJ hnUhJ (ksncJ 4kTmnTJ I kTn(hncnTJakshr i Jmksmn b$hnUhJ(ksncJ 4S AkanJ GnsnTmnTj nsJ J Gk. n(nUhTJ C4$ n,nJ Gnhr I nUkTJ HSh. nI J j nTmJ (k,$r U$I nT4nTmnTJ ,r nsFJr i r snTFJI kTj ksnI nTJhS4nTJhBhBUJSaSFJi r nUJ Uki nTFJ4nTJ n4nsJmnsn(VJ

CTn,SanJ wns$hTaFJ 4$hr Tni nTJ r TUri J (kTmr b$ nI ni ncJ I kshk4nnTJ NhsShaS I kT. n(I rsnTJakshr i Jmksmn b$ E23 FJ%23 FJ923 FJ I 23 KJ 4nI nUJ (kTmi $hnUJnTJ I kshk4nnTJ i r nUJ Uki nTVJ

J

HASIL PENELITIAN DAN PEMBAHASAN

y kTmr b$hTJ i r n,$haJ hnUrJ hnUhJ (ksncJ (kTmmr Tni nTJ I k4B(nTJ g C%2J % 8zVJ 1 naSJ I kTmr b$hTJ i r n,$haJ hnUrJ hnUhJ (ksncJ (k,$r U$ I kTmr b$hTJI nT4nTmnTJ,r nsFJr i r snTFJ4nj nJaksnI J nSJ4nTJhBhBUJSaSFJi r nUJUki nTFJ4nTJi n4nsJmnsn(J hnUrJ hnUhJ (ksncJ 4kTmnTJ cnaSJ I kTk,$$hTJ akhnmnShks$r UPJ

J

Pandangan Luar Batu Bata Merah

1 naSJ I kTmr b$hTJ I nT4nTmnTJ ,r nsJ hnUrJ hnUhJ(ksncJ4kTmnTJ I kTn(hncnTJakshr i Jmksmn b$

23 F%23 F923 FI 23 J(k,$r U$I kTmr b$TJhkTUi FJ onsTnJ4nTJhksnUj nTmJ4$UTbri nTJI n4nJUh,kJ0J 4nTJ=J

Tabel 5.J 1 na$,JykTmr b$TJ/ kTUi J/ nUJ/ nUJ6 ksncJ

GB4kJ	t ski r kTaS/ kTUi J/ nUJ/ nUJ6 ksncJB KJ				
	&nUJ	p$r J J enbn(J	&kUhi J	&nl r cJ	gj nsSTmJ
CJJ E23 KJ	%22J	%22J	l 2J	2J	82J
/ JJ E%23 KJ	%22J	%22J	2J	2J	%22J
HJJ E923 KJ	%22J	%22J	2J	2J	%22J
AJJ El 23 KJ	%22J	%22J	2J	2J	%22J
) JJ E523 KJ	%22J	%22J	2J	2J	%22J

J

Tabel 6. 1 na$,JykTmr b$TJx nsTnJ4nTJ/ ksnU&nU7snUJ / nUJ/ nUJ6 ksncJ

GB4kJ	x nsTnJ/ nUJ/ nUJ6 ksncJB KJ			/ ksnUJ &nU7 snUJ EGmKJ
	yks(ri nnTJ		y BUBTmnTJ	
	6 ksncJ er nJ	6 ksncJ Gk. Bi ,nUTJ	6 ksnUJ	
CJE23 KJ	82J	7J	82J	2F: l 5J
/ JE%23 KJ	z2J	7J	82J	2Fzz%8J
HJE923 KJ	82J	7J	z2J	2Fzl z90J
AJEl 23 KJ	82J	7J	z2J	2F808l J

enhk,J =J (kTr Tbri nTJ hnconJ onsTnJ l ks(ri nnTJhnUJhnUJ(ksncJ4kTmnTJi B4kJCFJHJ 4nTJAJ823 J(ksncJUnFJi B4kJ/ Jz23 J(ksncJUnJ ak4nTmi nTJx nsTnJl BUBTmnTJhnUJhnUJ(ksncJ i B4kJCF/ FHFAJ%223 J(ksnUJ

1 na$,JI kTmr b$TJhkTUi JhnUJhnUJ(ksncJ 4kTmnTJ l kTn(hncnTJ akshri J mksmnb$ 27l 23 J ak,r sr cTj nJ(k($$$h$nTmJsnUJar 4r Uj nJa$r J 4nTJUbn(JaksUJi ksnl r cnTJ23 Jpk(kTUsnJ$J 4$$Tbr J 4nsS i kskUi nTFJ akhnTj ni J l 23 J hkTUi Tj nJ skUi J 1 n,J STS 4$nskTni nTJ akshri J mksmnb$ (n(l r J hksar h$aS 4kTmnTJ l ns$k,J UTncFJakcSTmnnJ4nl nU4$n4$nTJakhnmShncnTJ l kTm$nUj nTmJni nTJ(kTmr snTmSi kskUi nTJ4nTJ i ksnl r cnTJ

1 na$,J kTmr b$TJhksnUsnU7snUJhnUJhnUJ (ksncJ4$ksB,kcJ4kTmnTJ nsnJ%2Jhr ncJhnUJhnUJ (ksncJ4$$ hnTmJ4nTJ4$(h$,hksnUsnU7snUTj nFJ (kTmn,n(SI kTr sr TnTJ4nsSi B4kJCJcSTmnJAJ

l kTr sr TnTJhksnUSTS4$i $nUnTJB,kcJn4nTj nJ NhsSaSl kTn(hncnTJhncnTJ. n(l rsnTJakshri J mksmnb$j nTmJ4$r Tni nTJi B(l BaSSTj nJhkshk4n7 hk4nJ

1 na$,J Uksakhr UJ (kTr Tbri nTJ hnconJ 4kTmnTJ l kTn(hncnTJ akshri J mksmnb$ (kTj khnhi nTJhksnUhnUJhnUJ(ksncJ.kT4ksr TmJ ak(ni STJ skT4ncVJ 1 n,J STS 4$khnhi nTJi nskTnJ hksnUkTSaJakshri Jmksmnb$,kh$Ji k. $,J4nsSl n4nJ hksnUkTSaUTncJ$nU/ ksnU(ni a$ r(JhnUJhnUJ (ksncJ 4kTmnTJ l kTn(hncnTJ akshri J mksmnb$ Uksbn4$l n4nJi B4kJ4kTmnTJ.n(l rsnTJ23 JnUr J UTl nJ.n(l rsnTJakshri Jmksmnb$JAn,n(Jg C%2J hnUJhnUJ(ksncJj nTmJhBhBUSSTj nJi rsnTmJ4nsS %F9J i mf4(l J 4$nUmBs$nTJ 4n,n(J hnUJ hnUJ (ksncJsSTmnTJ/ nUJhnUJ(ksncJSTSUks(nari J 4n,n(Ji nUmBsShnUJhnUJ(ksncJsSTmnTJi nskTnJ 4nsSak(r nJi B4kJU4ni Jn4nJj nTmJ(k,kh$S4nsS %F9J mf4(l J

J

Pengujian Ukuran Batu Bata Merah

1 na$,J l kTmr b$TJ ri r snTJ snU7snUJ hnUJ hnUJ(ksncJ4kTmnTJl kTn(hncnTJakshri Jmksmnb$ 23 J7l 23 J v i r snTJ hnUJ hnUJ (ksncJ akUk,ncJ 4$ni nsJ(kTmn,n(Sl kTj $ l nTmnTJ4nsSr i r snTJ . kUi nTJj nTmJ4$r Tni nTJj n$J4kTmnTJl nTbnTmJ 9l 2J((FJ,khnsJ%%2J((FJ4nTJUkhn,J02J((J1 n,J STS i k(r Tmi STnTJ 4$nskTni nTJ n4nTj nJ l kTn(hncnTJ akshri J mksmnb$FJ akUk,ncJ l sBakaJ l kTmksSTmnTJ ni nTJ . kT4ksr TmJ (kTmi $nUnTJ n4nTj nJ kTj r ar UTJ

J

Pengujian Daya Serap Air dan Bobot Isi

/ ks4nansi nTJ l n4nJ Uhk,J 8J Tn(l ni J hnconJ ak(ni STJ hnTj ni J l kTn(hncnTJ akshri J mksmnb$ 4nj nJ aksnl J n$J . kT4ksr TmJ J ak(ni STJ (kTSTmi nUFJ ak4nTmi nTJ hBhBUJ SaS ak(ni STJ (kTr sr TJ

J

Tabel 7.J Anj nJpksnl J4nTJ' BhBUJaSJ

g BVJ GB4kJ	Anj nJpksnl JCSJ E3 KJ	/ BhBUJaSJ Emf4(l KJ
CJ	92Fz=: 2l zJ	8Fz%0zJ
/ J	9=F0=z% zJ	8F089: J
HJ	90F588z: zJ	=F%l z%J
AJ	9zF=09% zJ	=F2l zl J

1 naSJr bSJl k(ksSannTJ4nj nJaksnl JUk,ncJ 4S ksB,kcJ hnco nJ ak(r nJ hkT4nJ r bSJ (k,khScSJ hnUhaJ UB,ksnTaSJakcSTTmnJ US4ni J akar nSJ 4kTmnTJ nUsnTJg OP%2VJ; ,kcJ nskTnJSJ Jr TUri J(kTmcST4nsSJ iksr ani nTJ i BTaUri aSJ j nTmJ 4Sakhnhi nTJ B,kcJ 4nj nJ aksnl J j nTmJ USTmmSJ (ni nJ al kaSJ j nTmJ 4Smr Tni nTJ cnsr aJ 4Sh(hncJ nSJ nUhr J 4S4ni nTJ l k(k,SnsnnTJ i cr ar aJ (San,i nTJ 4kTmnTJ . nsnJ 4SaSn(JnSVJ / kansTj nJ l ksakTUhakJ 4nj nJ aksnl J 4Sakhnhi nTJB,kcJn4nTj nJl BsSJl BsSJnUhr Jn4nTj nJ skUhi 7skUhi FJl k. nc7l k. ncJ n4nJhnUr JhnUhJ(ksncJ akcSTmmnJ(k(r Tmi STmi nTJnSJanTmnUJ. kl nUJ4nTJ (r 4ncJ(kskanl J kJ4n,n(JhnUr JhnUhJ(ksncVJJ

J

Kuat Tekan Batu Bata Merah

y kTmr bSnTJi r nUJUki nTJhnUr JhnUhJ(ksncJ 4kTmnTJl kTn(hncnTJakshr i Jmksmnb SJ4Shi r i nTJ 4kTmnTJ0JhkT4nJr bSr TUri J(naSTm7(naSTmJi B4kJ 4kTmnTJ cnaSJ l kTmr bSnTJ akl ksUSJ Uks,SnUJ l n4nJ Uhhk,JJzVJ

Tabel 8.J 1 naSJy kTmr bSnTJGr nUJeki nTJ&nUh7snUhJ/ nUr J / nUhJ6 ksncJ

GB4kJ pn(l k,J	Gr nUJ eki nTJ 6 nLVJ	Gr nUJ eki nTJ6 STJ	Gr nUJ eki nTJ &nUh7snUhJ
CJE23 KJ	l : F55zJ	90F8zJ	l 90F: 90J
/ JP%23 KJ	98Fz5zJ	9l F0=zJ	9F089F=%9J
HJE923 KJ	9=F: 0%J	9%F8: 9J	9F588F2: 5J
AJE 23 KJ	99F5%l J	%0Fz0=J	%F85%Fz=l J

enhk,J zVJ (kTr Tbr i i nTJ hnco nJ cnaSJ l kTmr bSnTJi r nUJUki nTJsnUh7snUhJhnUr JhnUhJ(ksncJ 4kTmnTJ l kTn(hncnTJ 23 J akshr i J mksmnbSJ l 9F0: 90J i mf. (dFJ l kTn(hncnTJ %23 J akshr i J mksmnSJakhkansJ90F89=%9Ji mf. (9FJl kTn(hncnTJ 923 Jakshr i JmksmnbSJakhkansJ95F882: 5Ji mf. (dFJ l kTn(hncnTJ l 23 J akshr i J mksmnbSJ akhkansJ %8F5%z=l J i mf. (dVJ / ks4nansi nTJ cnaSJ Uksakhr UJ (kTr Tbr i i nTJ hnco nJ n4nJ i k. kT4ksr TmnTJ l kTr sr TnTJ i r nUJ Uki nTJ 4kTmnTJ n4nTj nJ l kTn(hncnTJakshr i Jmksmnb SJ

1 naSJl kTmr bSnTJi r nUJUki nTJhnUr JhnUhJ (ksncJ 4kTmnTJ l kTn(hncnTJ akshr i J mksmnbSJ 4Snno ncJ =2J i mf. (9J akcSTmmnJ US4ni J akar nSJ 4kTmnTJg OP%2VJ AkTmnTJ4k(SnTJl kTn(hncnTJ akshr i J mksmnbSJ j nTmJ 4S kshB,kci nTFJ j nSJ J 23 J 4nTJ %23 J i nskTnJ i r nUJ Uki nTJ j nTmJ 4S ksB,kcJ Bl US n,J j nSJ J l 9F0: 90J i mf. (dJ 4nTJ 90F89=%9J i mf. (dJakcSTmmnJUks(nar i J k,naJ90J(kTr sr UJp OD 229%8zVJ

6 k,n,r SJ nTn,SaSJ NhsSnTaJ EnTnNhKJ 4S ksB,kcJcnsmnJt JcSJ TmJakhkansJ: F9%%Jv TUri J (kTmr bSaSnTSSnTaShkansnTJt JUhsnDJ>JRJ03 FJ4hJ l k(hSnTmJ5J4nTJl kTj khr UJ%2FJ4S ksB,kcJcnsmnJ Uhhk,Jl F58zVJg n(l ni JhncO nJt JcSJ TmJ<Jt JUhhk,J E F9%%<J l FF0KVJ AkTmnTJ 4k(SSnTJ 4nl nUJ 4SnUhi nTJhnco nJn4nJl kshk4nnTJTShSJi r n,SShaJ i r nUJ Uki nTJ hnUr J hnUhJ (ksncJ i nskTnJ l kTn(hncnTJ akshr i J mksmnbSVJ / ks4nansi nTJ nTn,SaSJMp AJ2F20J*Least Significance Difference*J l n4nJ UhsnDJ >J RJ 2F203 KFJ akhnmmS nTnJ 4SJ Tbr i i nTJl n4nJUhhk,J: FJTShSJl kshk4nnTJsnUh7 snUhJ i r nUJ Uki nTJ hnUr J hnUhJ (ksncJ nTUhsnJ . n(l r snTJakshr i JmksmnbSJ23 JJ4nTJ%2J3 JEC7/ KJ (kTr Tbr i i nTJ US4ni J hkshk4nFJ 4k(SSnTJ l r ,nJ r TUri J . n(l r snTJ %23 J 4nTJ 923 J E 7HKJ US4ni J hkshk4nVJekUhl SJ. n(l r snTJ23 J4nTJ92J(nr l r TJ l 23 J hkshk4nVJ / ks4nansi nTJ cnaSJ STSJ (kTr Tbr i i nTJhnco nJnTUhsnJ. n(l r snTJ23 J4nTJ %23 JTj nUhJS4ni Jhkshk4nVJ

Tabel 9.J 1 naSJv bSMpAJ

y nanTmnTJ	pk,SaSJsnUh7snUhJ	GsSUksSnJ
CJ7J' J	0F5zJYJ8F955J	eS4ni Jhkshk4nJ
CJ7JHJ	8Fz9J<J8F955J	/ kshk4nJ
CJ7JAJ	%0F%8J<J8F955J	/ kshk4nJ
/ J7JHJ	9F 5JYJ8F955J	eS4ni Jhkshk4nJ
/ J7JAJ	: F=: J<J8F955J	/ kshk4nJ
HJ7JAJ	8F 0J<J8F955J	/ kshk4nJ

J

Hasil Pengujian Kadar Garam Batu Bata Merah

ykTmrbSnTJinT4rTmnTJin4nsJmnsn(JhnUrJ hnUnJ(ksncJ4SnirinTJ4kTmnTJ.nsnJ0JhrncJhnUrJ hnUnJ(ksncJ4SkUnhinTJ4n,n(JhkbnTnJjnTmJhksSaS nSEJ akUk,ncJ ak,rsrcJ Iks(rinnTJ hnUrJ hnUnJ (ksnc(nTbn4S hnancJ iSn7i SnJ ak,n(J 9J cnsSEJ ik(r4SnTJ4SnTminUJ4nTJ4SkUnhinTJIn4nJUk(InUJ jnTmJUS4niJUksikTJaSTnsJ(nUncnsS,nTmarTmV/nUrJ hnUnJ(ksncJjnTmJUk,ncJiksSTmEJik(r4SnTJ4SSnUJ Iks(rinnTjnJjnTmJ(kTmk,rnsinTJ,nISnTJIrUSJ 4nTJ4STjnUnhinTJ4n,nJIksakTV1naSJIkTmrbSnTJ inT4rTmnTJin4nsJmnsn(JhnUrJhnUnJ(ksncJ 4SUTbriinTJn4nJUhk,J%2V

Tabel 10. 1naSJykTmrbSnTJGnT4rTmnTJGn4nsJdnsn(J /nUrJ/nUnJ6ksncJ

GB4kJ	Gn4nsJdnsn(JeSnIJ/kT4nJvbS					GsSUksSnJ
	OJ	OOJ	OOOJ	OVJ	wJ	
CJ	YJ	YJ	YJ	YJ	YJ	eS4niJ
E23 KJ	023 J	023 J	023 J	023 J	023 J	hkshncnjnJ
/J	YJ	YJ	YJ	YJ	YJ	eS4niJ
E%23 KJ	023 J	023 J	023 J	023 J	023 J	hkshncnjnJ
HJ	YJ	YJ	YJ	YJ	YJ	eS4niJ
E923 KJ	023 J	023 J	023 J	023 J	023 J	hkshncnjnJ
AJ	YJ	YJ	YJ	YJ	YJ	eS4niJ
E23 KJ	023 J	023 J	023 J	023 J	023 J	hkshncnjnJ

1naSJIkTmrbSnTJhnUrJhnUnJ(ksncJIn4nJ hnUrJhnUnJ(ksncJ4kTmnTJ(kTmmrTninTJhncnTJ .n(IrsnTJakshriJmksmnbS4SAkanJGnsnTmnTjnsJ Gk.n(nUnTJ C4S$n,nJ GnhrInUkTJ HSn.nIJ 4S$ksB,kcJ4nUnJjnTmJ4nInUJ(k(kTrcSajnsnUJ IksakTUnakJinT4rTmnTJmnsn(JjnTmJ,nsrUJ4nTJ (k(hncnjninTJjnSUrJrsnTmJ4nsS023 Venhk,J%2J (k(Iks,SnUinTJ hnconJ cnaSJ IkTmrbSnTJ inT4rTmnTJ in4nsJ mnsn(J hnUrJ hnUnJ (ksncJ 4kTmnTJIkTn(hncnTJakshriJmksmnbS(k(kTrcS IksajnsnUnTJ gO%2J (nrIrTJ pOO229%7%8zEJ inskTnJak,rsrcJiB4kJCJE23 KJan(InS)JE523 KJ Iks(rinnTJ hnUrJ hnUnJ (ksncJ jnTmJ UksUrUrIJ ,nISnTJ IrUSJ anTmnUJ ak4S$SJ nUnrJ IksakTUnakinT4rTmnTJin4nsJmnsn(JjnTmJ,nsrUJ 4nTJ (k(hncnjninTJ (naSJ 4SnoncJ 023 VJ GBT4SaSUksakhrUJ(kTrTbriinTJhnconJhnUrJhnUnJ (ksncJ4kTmnTJkTn(hncnTJakshriJmksmnbSUS4niJ hkshncnjnJrTUriJkiksbnnTJBTaUsriaSEakcSTmmnJ ,njniJ4SmTninTJakhnmnShncnTJhnTmrTnTVJ

/ks4nansinTJcnaSJnTn,SaSaJrbSIirn,SUhaJ hnUrJhnUnJakhnmn$nTnJUk,ncJ4SrsnSninTJ4ShUnaJJ 4nInUJ4Sa$Ir,inTJhnconJIkTn(hncnTJakshriJ mksmnbS akhnmnS hncnTJ .n(IrsnTJ hnUrJ hnUnJ (ksncJ4SAkanJGnsnTmnTjnsJGk.n(nUnTJC4S$n,nJ GnhrInUkTJHSn.nIJ(k(nTmJhk,r(JJ(k(kTrcS aUnT4nsJirn,SUhaJjnTmJUk,ncJ4SUkUnIinTEJ4n,n(J cn,JSTSgO%2J%8zVJGk.rn,SIn4nJJIkTmrbSnTJ InT4nTmnTJ ,rnsJ 4nTJ in4nsJ mnsn(J ar4ncJ (k(kTrcSajnsnUVJJ

1naSJIkTmrbSnTJirnUJUkinTJ.kT4ksrTmJ ak(niSTJ(kTrsrTJ4kTmnTJn4nTjnJIkTn(hncnTJ akshrSJmksmnbSVJyn4nJIkTmrbSnTJirnUJUkinTJ cnTjnJn4nJ4rnJan(Ik,JnUnrJIksanTUnakJakshriJ mksmnbSjnTmJ(k(kTrcSaUnT4nsJjnSUrJn4nJiB4kJ CJE23 KJ4nTJiB4kJ/JE%23 KEJ(nariJ4n,n(J aUnT4nsJpOO229%78zJak4nTminTJ4n,n(JgO%2J %8zJUS4niJ(nariJ4n,n(JisSUksSnJhnUrJhnUnJ (ksncJnTmJhksirn,SUhaVJJ

)DkiUSSUhaJIkTk,SSnTJSTSn4n,ncJIn4nJ IkTn(hncnTJ akshriJ mksmnbS %23 VJ 1naSJ IkTk,SSnTJSTS(k(hksSnTJIkTbk,nanTJhnconJ IkTn(hncnTJ akshriJ mksmnbS %23 J US4niJ (kTrTbriinTJ Ikshk4nnTJ irnUJ UkinTJ jnTmJ aSnTSSnTJ4kTmnTJhnUrJhnUnJUnTInJIkTn(hncnTJ akshriJmksmnbSE23 KV/ksnUJhnUrJhnUnJ4kTmnTJ .n(IrsnTJ%23 JninTJ(kTmcnaSnTJhksnUJhnUrJ hnUnJjnTmJ,khSJsSTmnTVAS$Tbnr J4nsSiksk UhinTEJ .n(IrsnTJ%23 JUS4niJUksbn4Siksk UhinTJE23 KJ ,khSJ (kTmrTUrTminTJ 4SnT4STminTJ 4kTmnTJ .n(IrsnTJ23 JhinTJ(kTmcnaSnTJ23 JkUhiV

pk.nsnJikak,rsrcnTJcnaSJIkTk,SSnTJSTS (k(hksSnTJ(narinTJhnmS onsmnJakUk(InUJ hnconJhnUrJhnUnJjnTmJak,n(nJSTS4SmrnUJEUnTInJ .n(IrsnTf23 KJ 4nInUJ 4SUn(hncJ 4kTmnTJ .n(IrSnTJakshriJmksmnbSakhkansJ%23 JrTUriJ

(kT4nI nUnTJ i r n,$haJ j nTmJ . kT4ksr TmJ an(nJ nUhr J U4ni J hkshk4nJ a$nT$$nTJ UkUhI $I ni nTJ 4$ ksB,kcJi r n,$haJhnUJhnUhJj nTmJ,kh$Js$TmnTVJ QI ,$naSI 4ns$I cna$,J TI n4n,ncJ I kTn(hncnTJ akshri J mksmnb$I %23 J ni nTJ (kTmcna$,nTJ hnUJ hnUhJj nTmJak4$$Jsk,nUJ,khJs$TmnTJhksnUTj nFJ 4nTJ(n(I rJ(kT$Tmi nUnTJI sB4ri U$$$haJi nskTnJ i kskUhi nTTj nJ 23 J UkUhI $I ni nTJ (k(hks$nTJ i ki r nUhTJj nTmJU4ni Jhkshk4nJak. nsnJa$nT$$nTJ 4kTmnTJ UhTI nJ. n(I rsnTVJA$n(I TmJUJbr mnJ (n(I rJ (kT$Tmi nUnTJ I sB4ri U$$$haJ i nskTnJ hks4nansi nTJ I kTk,$$$TFJ hnUJ hnUhJ UhTI nJ . n(I rsnTJakshri Jmksmnb$I(kTmn,n($IskUhi J4nTJ I nUhcJaki $hsJI 23 Ji kU$nJI kTmks$TmnTJak4nTmJ 4kTmnTJ. n(I rsnTJakshri Jmksmnb$IU4ni Jh4nJj nTmJ skUhi J4nTJI nUhcVJAns$Iakm$IaUri Ursn,Jbr mnJ,kh$J hn$J i nskTnJ hnUJ hnUhJ 4kTmnTJ I kTn(hncnTJ akshri Jmksmnb$I %23 J(k($,$$IhksnUJj nTmJ,kh$J s$TmnTJUhI $I(k($,$$Ii ki r nUhTJj nTmJsk,nU$Jan(nJ (kTm$TmnUJhnUJhnUhJn4n,ncJhncnTJI kTj ki nUJ nUhr J TBTJ aUri UrsFJ 4$ nTnJ j nTmJ 4$hr Urci nTJ n4n,ncJhncnTJj nTmJs$TmnTJUhI $I r nUVJ

SIMPULAN DAN SARAN

Simpulan

pkshri J mksmnb$I 4nI nUJ 4$ nTDnnUnTJ akhnmn$I hncnTJ . n(I rsnTJ 4n,n(J I k(hr nUhTJ hnUJhnUhJ(kcnFJ4kTmnTJI sBakTUhakJ. n(I rsnTJ akhkansJ%23 VJ1 na$,JI kTmr b$nTJi r nUJUki nTJhnUJ hnUhJ(kcnJ4kTmnTJI kTn(hncnTJakshri Jmksmnb$I 23 JnUhr JUhTI nJakshri Jmksmnb$IE 9F0: 90i mf. (dKJ (k(I rTj nT,n$Ii r nUJUki nTJj nTmJU4ni Jhkshk4nJ a$nT$$nTJ4kTmnTJI kTn(hncnTJakshri Jmksmnb$I %23 J E90F89=%9J i mf. (dKVJ 1 na$,J I kTmr b$nTJ I nT4nTmnTJ,r nsJ(kTr Tbr i nTJhnUJhnUhJ(kcnJ 4kTmnTJ I kTn(hncnTJ akshri J mksmnb$I U4ni J (kTmi $nUnTJ n4nTj nJ i kskUhi nTFJ akc$TmnmJ ni nTJ4$ ksB,kcJhnUJhnUhJj nTmJ,khJsTmnTJ4nTJ 4$nsnI i nTJ 4nI nUJ (kT$Tmi nUnTJ I sB4ri U$$$haJ i nskTnJU4ni J(kTmni $nUnTJ kskUhi nTVJ

Saran

/ ks4nansi nTJ cna$FJ I k(hncnanTJ 4nTJ i ka$ I r,nTJI kTk,$$$TJ4nI nUJ4$r br i nTJJansnT7 ansnTJakhnmn$Ihks$r UPJ

%VJ pkhn$TjnJ I kTn(hncnTJ akshri J mksmnb$I 4n,n(JI k(hr nUhTJhnUJhnUhJ(ksncJakhnmn$I hncnTJ. n(I rsnTJ(kTmr TninTJI ksakTUhakJ aki $hsJ%23 VJ

9VJ yks,r J n4nTj nJ I kTk,$$$TJ ,kh$J ,nTbr UJ (kTmkTn$I akshri J mksmnb$I 4ns$I bkT$aJ i nj r J UksUkTUJ akhnmn$I hncnTJ Uh(hncJ nUhr J . n(I rsnTJ 4n,n(JI sBakaJI k(hr nUhTJ hnUJ hnUhJ(ksncVJ

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1 nsUBTBFJ □V6 VVJ %z8VJ *Bahan Mentah Untuk Membuat Keramik.* / nT4r TmPJAkI nsUk(kTJ yks$T4r aU$nTVJ

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