Fire Protective Coatings: An Overview BV Bbge S. Plii/h

tructural steel often needs to be fire fqv; ^ka 3) bugboflo pm^`bp ge^g ^ob mbo j ^kbkgiv protected for use in residential and Q bum lpbaaqh qeb biBgrbkqpd cement * based coatings Peb qef`hkbpp lc ^ `l^qfkd clo pqor`qro^i P prayed * fiber products, used mostly out tkqteof lo fkqr j bp`bkq `l^qfkdp ^ob qvmf`^iiv the R nited P tates, are pneumatically phkhpekd ^p gefk-cfij fkgr j bp`bkg `l^gfkdp. dry to a now wle. Fn the now wle, the **Retkree fiviget teab** ^s^fi ib ^p bfgebo t ^gbo- ^pba

Coating Thickness pqbbi abmbkap lk qeb pfwb lc qeb pqbbi jb j bo, need stank for the of the beared disperion the leve menous i 10 Rogikkoviv! MR 20600 noji up biraka de o bki nofkel ftpuid hop stabp. I afk dp clo ^ _baabo Ammbook b. Dbpfdkbop `^k j ba qebq% eska`

qb`qp ^ kb t ql li fk qebfo ^opbk^i pl pqbbi `^k b bum | pba q | pfdeq.

Peb mob i fr i mof`bp pl i bqf i bp ^ppl `f^qba t fqe qefk-cfi j `l^qfkdp ^ob lccpbq _v qeb s^irb lc qeb molar`q, ^``loafkd ql Fordb. §Smo^vba cf_bop ^ob `eb^m, ^ka qebv e^sb qebfo mi^`b lk qeb j ^ohbq, rq qebv ^ob k lq prfq^ ib clo bum lpba ^ob^p,¶ eb p^fa. §FIo ^ ifqqib j lob j lkbv mbo pnr^ob cllq fkpq^iiba, vlr `^k dl ql qefk cfi j p ^ka klq t loov ^_lrq qeb ^aafqflk^i `lpq lc t ^iifkd-fk qeb pqor`qrob.¶

Pf j Rfibv, ^ obdflk^i cfobmollcfkd j ^k^dbo clo C^o_lifkb Cl., ^aap qe^q rpfkd qefk-cfi j p `^k ^ipl p^sb s^ir^_ib ib^p^_ib pm^`b clo _rfiafkd | t kbop. §Tebk v|r t loh tfqe `|ksbkqflk^i cfob-molqb`qflk j ^qbof^ip, vlr e^sb ql `lsbo qeb cfob-molqb`qflk rm pljbelt,¶ eb p^fa. "Rpfkd ^ `lir j k `lsbo `^k alr_ib qeb cllqmofkq lcqeb `lir j k."

Exterior Intumescent Coatings

Euqboflo fkqr j bp`bkq `l^qfkdp, hkltk ^p j ^pqf``l^qfkdp, ^ob clo rpb fk eb^sv fkarpqof^i bksfolk j bkgp, lo tebk pgbbi fp il `^gba lk geb I ropfab Ic ^ rfiafkd ^ka pofii kbbap ^ cfob o^ofkd. Eu^ j mibp ^ob pq^afr j p, qeb j b m^ohp, mbqol

bo^iiv obnrfob kl j lob qe^k q t l ql qeobb `l^qp,

fkd ql qeb pr pqo^qb.

Pvmf`^iiv, `bjbkqfqflrp ^ka pmo^vba-cf_bo molar`qp ^ob efaabk col j sfb t, ^_lsb ^ oll j 'p `bfifkd Io befka fqp aov t ^ii.

with high * pressure water that carries the coat

A``loafkd ql Pefi W^kdef, cfob molgb`qflk molar`q j^k^dbo clo T.R. Go^`b, jbafrjt bfdeg abkpfgfbp lc geb `l^gfkdp ^ob j lpg `l j j lkiv rpba. §Pblmib dbkbo^iiv rpb qeb j fkfjrj obnrfoba_v qeb`labp, pl fq'p lkiv tebk vlr e^sb lqebo kbbap É ifhb buqboflo t ^qbo bumlprob È ge^g v l r rpb ^ efdebo abkpfgv,¶ eb p^fa.

Hfdebo abkpfqv o^mfa-ofpb `l ^qfkdp ^ipl ebim molqb`q ^d^fkpq mbqolibr j cfobp, fk t ef`e qb j mbo^qrobp ofpb nrf`hiv.

Intumescent Coatings

lkqr j bp`bkq `l^qfkdp molsfab m^ppfsb cfob molqb`qflk ^p t bii. Pebv `lkpfpq lc qefk `eb j f`^i cfijp qe^q ptbii ^ka bum^ka tebk bumlpba ql efde qb j mbo^qrobp ql clo j ^ aro^_ib, ^aebobkq, cfob-obpfpq^kq cl^j i^vbo. Pefp i^vbo molsfabp ^k fkpri^qfkd ^oofbo arofkd ^ cfob.

Ik `lkqo^pq ql `lksbkqflk^i `l^qfkdp, fkqrj bp`bkqp ^mmb^o j lob m^fkq-ifhb t ebk ^mmifba al paor`aro^i pabbi, dfsfkd aeb j dob^abo mlabkqf^i clo ^bpqebqf` ^ka ^o`efqb`qro^i ^mmif`^qflkp tebk ^mmifbaql bumlpbapqbbi jbj_bop.

RL abpfdk^qbp fkqr j bp`bkq `l^qfkdp _v rp^db, fk geobb `^gbdlofbp: 1) lkgboflo `lkafqflkba pm^`b, tfqe `lkqoliiba qbjmbo^qrob ^ka er j fafqv `lkafqflkp; 2) fkqboflo rk`lkafqflkba pm^`b, tfqe s^of^_ib qb j mbo^qrob ^ka er j fa-

j bp`bkqp, ¶ Rfibv p^fa. §T^qbo-_^pba molar`qp jfdeq klq_b ^_ib ql ^``bmq ^k bmluv, ^ka vlr t lk'q e^sb molmbo ^aebpflk.¶

§Pefp `lria dblm^oafwb cfob bkaro^k`b fk geb ilkd qboj,¶eb`lkqfkrba. §Ao`efqb`qp^ka`lkqo^`qlop pelria pmb`fcv `loob`qiv ^ka cliil t qeb j ^krc^`qrobo'p fkpqor`qfl kp.¶

Mlob fkclo j ^qflk lk cfob molqb`qflk fp ^s^fi-^ ib fk AISC'p Design Guide 19: Fire Resistance of Structural Steel Framing. *

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